Prosenjit Bose

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Work Experience: Academic:

Period	Position	Place
01/23 –	Associate Dean Research and International	Carleton Faculty of Science
04/20 –	Chancellor's Professor	Carleton University
10/22 –	Adjunct Professor	University of Windsor
09/20 –	Adjunct Professor	Tufts University
06/14 –	Adjunct Professor	University of Manitoba
06/10 –	Collaborateur Scientifique	Univ. Libre Bruxelles
07/06 –	Full Professor	Carleton University
09/20 – 08/23	Director of OCICS	Carleton U and U of O
07/20 – 12/22	Graduate Director (Program Management)	Carleton University
08/10 – 08/16	Associate Dean Research and Grad Studies (Science)	Carleton University
07/11 – 11/15	President of Scholarships & Fellowships, Member of COGS	NSERC
01/10 – 07/10	Acting Associate Dean Research (Science)	Carleton University
07/00 – 07/06	Associate Professor	Carleton University
09/03 – 12/03	Visiting Professor	SITE Ottawa U, Ottawa
01/03 – 08/03	Visiting Professor	U. Catalunya, Barcelona, Spain
07/00 – 02/02	Director of Ott.-Carleton Inst. of Comp. Sci.	Ottawa & Carleton University
07/99 – 07/00	Assoc. Dir. of Ott.-Carleton Inst. of Comp. Sci.	Ottawa & Carleton University
07/99 – 02/02	Director Graduate Studies, School of Comp. Sci.	Carleton University
07/97 – 07/00	Assistant Professor (tenured 07/99)	Carleton University
12/95 – 07/97	Assistant Professor	U. du Québec à Trois-Rivières.
09/94 – 12/94	Teaching Assistant	McGill University
09/92 – 12/94	Technical Report Librarian	McGill University
01/93 – 04/93	Lecturer	McGill University
01/92 – 04/92	Lecturer	U. du Québec à Trois-Rivières
05/90 – 12/91	Research and Teaching Assistant	University of Waterloo

Education:

01/95 – 12/95 **Killam & NSERC Postdoctorate Fellowship**, Univ. of British Columbia.
Investigated the applications of Computational Geometry in such areas as Automated Manufacturing, Geographic Information Systems (GIS), Pattern Recognition, Graph Drawing and Scientific Visualization with Dr. David Kirkpatrick and Dr. Jack Snoeyink.

01/92 – 12/94 **Ph.D. Computer Science**, McGill University.
D.W. Ambridge Award – Outstanding PhD Graduate in Science & Engineering.
Thesis: *Geometric and Computational Aspects of Manufacturing Processes.*
Dean's Honour List.
Supervisor: Dr. Godfried Toussaint

05/90 – 12/91	**M.Math. Computer Science**, University of Waterloo. Thesis: *Visibility in Polygons*. Dean's Honour List. Supervisors: Dr. Anna Lubiw and Dr. Ian Munro
09/85 – 04/90	**B.Math. Honours Computer Science & Combinatorics**, Univ. of Waterloo. Graduated with Distinction on Dean's Honour List.

Main Research Interests:

Research Interests	Applied Geometric Computing (applications to Manufacturing, G.I.S., Pattern Recognition, Image Processing), Computational Geometry, Data Structures, Algorithm Design and Analysis, Randomized Algorithms, Graph Theory.
Geometric computing	The design, analysis, and empirical study of algorithms for geometric problems such as those that occur in geographic information systems, manufacturing, facility location
Online and distributed computing	The design, analysis and empirical study of routing protocols and distributed algorithms

Grants:

Source	Amount	Duration	Principal Investigator	Type
Carleton	$15 000	2021	P. Bose	University Research Achievement Award
Carleton	$5 000	2020	P. Bose	Faculty Research Achievement Award
NSERC	$275 000	2019-2023	P. Bose	Discovery
MITACS	$90 000	2020-2022	P. Bose and M. Bremner	Accelerate
NSERC	$25 000	2019-2020	P. Bose and J. Howat (Kinaxis)	Engage
TRIP	30 000 Euros	2018-2020	O. Devillers and P. Bose	Inria Team grant
NSERC	$230 000	2014-2018	P. Bose	Discovery
NSERC	$200 000	2009-2013	P. Bose	Discovery
Belgium	$15 000	2008	P. Bose	Visiting Researcher Award
Carleton	$15 000	2008	P. Bose	Teaching Achievement Award
PREA - Early Researcher	$150 000	2006-11	P. Bose	Research Excellence Award
Carleton	$15 000	2006	P. Bose	Research Achievement Award
NSERC	$150 000	2004-2008	P. Bose	Operating
Catalunya	$15 000	2003	P. Bose	Visiting Researcher Award
Carleton	$10 000	2001	P. Bose	Research Achievement Award
NSERC	$108 000	2000-2003	P. Bose	Operating
NSERC	$26 565	1999	P. Bose	Operating
NSERC	$25 300	1998	P. Bose	Operating
NCE GEOIDE	$400 000	1998-02	J. Sack	NCE
NCE GEOIDE	$120 000	1998-1999	C. Gold and J. Snoeyink	NCE
NCE MITACS	$400 000	1998-2002	B. Bhattacharya	NCE
Carleton	$10 000	1998	P. Bose	Start-up
Carleton	$10 000	1997	P. Bose	Start-up
NSERC	$23 000/yr	1996-1997	P. Bose	Operating
FCAR	$13 000	1996	P. Bose	Operating
FCAR	$13 900	1996	P. Bose	Equipment
UQTR	$10 000	1995	P. Bose	Start-up

Achievement Awards:

Year	Award
2021	Carleton University Research Achievement Award
2020	Research Achievement Award - Carleton Faculty of Science
2018	Best paper Award - International Symposium on Graph Drawing
2014	Carleton University Graduate Mentorship Award
2009	Nominated for TVO Ontario Best Lecturer Award
2008	Carleton University Teaching Achievement Award
2006	Premier's Research Excellence Award - Early Researcher
2006	Carleton University Research Achievement Award
2001	Carleton University Research Achievement Award
2001	Best Paper Award - Sirocco 2001
1995	D.W. Ambridge Award for McGill's Outstanding PhD Graduate in Science & Eng.
01/95 - 12/95	Killam Postdoctorate Fellowship
01/95 - 12/95	NSERC Postdoctorate Fellowship
1995	FCAR Postdoctorate Fellowship (declined)
05/94 - 12/94	FCAR Postgraduate Scholarship
05/91 - 04/94	NSERC Postgraduate Scholarship (PGS2, PGS3)
09/90 - 12/91	ICR (Inst. for Comp. Research, Waterloo) Scholarship
1992 - 1994	Dean's List, McGill University
1989 - 1991	Dean's List, University of Waterloo

Teaching:

Course Number	Course Title	Institute	Semester
308-557B	Computer Graphics	McGill	W93
ROP-1010	Algorithms (in French)	UQTR	F96
SIF-1015	Operating Systems (in French)	UQTR	W97, F96, W92
SIF-1016	Data Structures (in French)	UQTR	S97, S96
SIF-1048	Computational Geometry (in French)	UQTR	W97
95.102	Intro. Systems Prog.	Carleton	W98
95.185	Discrete Math	Carleton	F02
95.202	Data Structures	Carleton	W99
95.300	Operating Systems	Carleton	F00, W99, F97
95.384	Algorithms	Carleton	F99, W99, W98, W00
95.508	Computational Geometry	Carleton	F00, W00, F01, F02
95.591	Optimization Problems	Carleton	F98
95.591	Partitioning Problems	Carleton	W99
95.591	Kinetic Data Structures	Carleton	F01
95.591	Computer Vision: Inpainting	Carleton	S02
95.691	Dynamic Data Structures	Carleton	F99
95.691	Facility Location	Carleton	W00
COMP1805	Discrete Math	Carleton	F04, F05, F06, F07, F08, F09, W13, W16
COMP1805	Discrete Math Tutorials	Carleton	F04, F05, F06, F07, F08
COMP2402	Data Structures	Carleton	W04
COMP2804	Discrete Structures II	Carleton	F22
COMP3804	Algorithms	Carleton	F16, F17, F20
COMP4804	Advanced Algorithms	Carleton	W11, W12, W13, W16, F18, F19, F20, F21, F22, F23
COMP5008	Computational Geometry	Carleton	F04, F05, F06, F07, F08, F09, F19
COMP5409	Applied Computational Geometry	Carleton	W11

Administrative Duties at Carleton:

Duty	Duration
Carleton RAA Committee	2021-2022
Carleton Research and Computing Committee	01/13 - 07/16
Graduate Faculty Board	01/10 - 07/16
Carleton Research Advisory Committee	01/10 - 07/16
NSERC Evaluation Committee (Carleton)	08/06 - 07/16
Career Services Advisory Committee	07/12 - 07/15
Project Leader - COOP Benchmarking	05/13 - 03/15
Carleton Negotation/Bargaining Team	10/13 - 03/14
Carleton Research Space and Facilities Task Force	01/13 - 12/13
Post-Doctoral Fellow Committee	02/10 - 07/13
SCS Executive Committee	09/11 - 09/12
Hiring Committee	11/11 - 07/12
TAA Evaluation Committee	11/11 - 12/11
OCICS Board Member	08/10 - 08/11
NSERC/OGS Comp. Sci. Evaluation Committee	08/05 - 08/10
Undergraduate Recruitment Committee	07/07 - 08/10
Graduate Studies Committee	07/07 - 07/10
Senate Tenure Appeal Committee	07/07 - 07/11
Curriculum Reinvention Committee	04/09 - 01/11
Hiring Committee	11/08 - 12/09
NSERC Evaluation Committee (SCS)	08/05 - 08/09
OGS Evaluation Committee (SCS)	08/05 - 08/09
Associate VP Selection Committee	11/09 - 12/09
School Web Site Design Committee	07/07 - 08/08
Graduate Affairs Committee	05/05 - 07/07
OCICS Committee Member	01/04 - 07/07
Graduate Admissions Committee	01/04 - 07/07
ISS Committee Member	01/04 - 07/07
Hiring Committee Member	01/98 - 12/02
Executive Committee Member	07/00 - 12/02
ISS Committee Member	07/00 - 12/02
Director of OCICS	07/00 - 02/02
Associate Director of OCICS	07/99 - 07/00
Graduate Director	07/99 - 02/02
Graduate Admissions Committee	07/99 - 12/02
OCICS Committee Member	07/99 - 12/02
Coop Committee Member	09/98 - 01/02
Honors Project Coordinator	09/97 - 08/99
Co-organizer of CATS	1997-99

Graduate and Post-Graduate Student Supervision:

Name	Years	Degree	Thesis Topic
John Stuart	24 -	PhD	Computational Geometry
Bobby Miraftab	23 -	PostDoc	Algorithms and Graphs
Zoltan (William) Kalnay	23 -	PhD	Algorithms
Karthik Murali	22 -	PhD	Computational Geometry
Yan Garito	22 -	PhD	Computational Geometry
David Worley	21 -	PhD	Computational Geometry
Ikaro Costa	21 -	PhD (U. Manitoba)	Computational Geometry
Alma Loyola	21 -	PhD	Computational Geometry
Saeed Odak	21 -	PhD	Computational Geometry
Andrew Gonczi	20 -	PhD (Tufts Univ.)	Computational Geometry
Tyler Tuttle	20 -	PhD	Computational Geometry
Guillermo Esteban	20 -	PhD (cotutelle)	Computational Geometry
Mike Bremner	19 -	PhD	Computational Geometry
Sandrine Njoo	22 - 23	Masters	Computational Geometry
Saman Bazargani	19 - 23	PhD	Computational Geometry
Mehrnoosh Javarsineh	19 - 23	PhD	Graphs
Elmira Adeeb	21 - 23	PhD	Changed Topics 2023
Patrick Devaney	22 - 23	Masters	Computational Geometry
Anthony D'Angelo	16 - 22	PhD	Algorithms
Zoltan (William) Kalnay	20 - 22	Masters	Algorithms
Christopher Blackman	20 - 22	Masters	Rendez-vous problems
Yan Garito	21 - 22	Masters (U. Bordeaux)	Computational Geometry
Joyce Bacic	21 - 21	NSERC USRA	Computational Geometry
Julia Cai	21 - 21	NSERC USRA	Computational Geometry
Charles Nguyen	21 - 21	UG research (DSRI)	Computational Geometry
Yunkai Wang	19 - 21	Masters	Computational Geometry
Francois-Xavier Chaplain Corriveau	19 - 21	Masters	Algorithms
Tyler Tuttle	18 - 20	Masters	Computational Geometry
Luis Fernando	20 - 20	Postdoc	Computational Geometry
Maria del Pilar Cano	16 - 20	PhD	Computational Geomtry
Hugo Akitaya	19 - 20	Postdoc	Computational Geometry
Richard St. John	19-20	UG research	Kinaxis Collaboration
Alex Trostanovsky	19-20	UG research	Kinaxis Collaboration
Zoltan Kalnay	19-20	UG research	Kinaxis Collaboration
Saeed Mehrabi	17 - 20	Fields Postdoc	Computational Geometry
Luis Fernando	16 - 20	PhD	Computational Geometry
Christopher Blackman	19 - 19	UG research	Rendez-vous problems
Yeganeh Bahoo	14 - 19	PhD (U. Manitoba)	Computational Geometry
Darryl Hill	15 - 19	PhD	Computational Geometry
Qi Dong	18 winter	UG research	Computational Geometry
Martin Derka	17 - 18	NSERC Postdoc	Computational Geometry
Esra Saleh	17 summer	NSERC USRA	Computational Geometry
Nicolas Lalonde	17 summer	DSRI	Computational Geometry
Sander Verdonschot	15 - 18	PostDoc	Computational Geometry
Frédérik Paradis	15 - 17	Masters	Computational Geometry
Bahaa Khaddaj	18 - 19	Masters	Computational Geometry
Alina Shaikhet	12 - 17	PhD	Computational Geometry
Hugo Tremblay	16 - 17	Postdoc	Graph Theory
Ahmad Biniaz	16 - 17	Postdoc	Computational Geometry
Anthony D'Angelo	14 - 16	Masters	Algorithms

Name	Years	Degree	Thesis Topic
Qi Dong	16 summer	UG research	Computational Geometry
Xiyi liu	16 summer	DSRI UG research	Computational Geometry
Justin Kim	16 summer	DSRI UG research	Computational Geometry
Luis Felipe Barba	12 - 16	PhD	Computational Geometry
Mahdi Amani	15 - 15	PhD (exchange)	Algorithms
Tommy Reddad	13 - 15	Masters	Algorithms
Lucas Rioux Maldague	14 - 15	Masters	Computational Geometry
Sander Verdonschot	10 - 15	PhD	Flips and Spanners
Darryl Hill	13 - 15	Masters	Computational Geometry
Chris Hoedemakers	14 - 15	Masters (exchange)	Computational Geometry
Micha Krauter	14 - 15	Masters (exchange)	Computer Vision
Jean-Lou De Carufel	09 - 15	PostDoc	Computational Geometry
André van Renssen	10 - 14	PhD	Algorithms and Data Structures
Vafa Khoshaein	12 - 14	Masters	Computer Vision
Maxime Peabody	14 summer	NSERC USRA	Networks
Anthony D'Angelo	14 summer	NSERC USRA	Networks
Maxime Peabody	13 - 14	UG Research Asst.	Computational Geometry
Pokong Lai	11 - 13	Masters	Image Processing
Dan Chen	07 - 13	PhD	Computational Geometry
Nima Hoda	11 - 12	UG Research Asst.	Computational Geometry
John Howat	08 - 12	PhD	Distribution Sensitive Data Structures
Vida Dujmovic	08 - 11	PostDoc	Graph Drawing
Christian Wulff-Nilson	10 - 11	PostDoc	Computational Geometry
Dana Jansens	10 - 11	PhD	Algorithms and Data Structures
Dania El-Khechen	09 - 11	PostDoc	Computational Geometry
Ken Chan	09 - 10	Masters	Computational Geometry
Karim Douieb	08 - 10	PostDoc	Computational Geometry
Mohammad Farshi	07 - 09	PostDoc	Computational Geometry
Gail Banaszkiewicz	07 - 09	Masters	Computer Vision
Greg Aloupis	05 - 09	Part-time PostDoc	Computational Geometry
Drew Martin	09 summer	NSERC USRA	Computational Geometry
Greg Bint	09 summer	Dean's SRA	Computational Geometry
Vafa Khoshaein	09 summer	NSERC USRA	Image Processing
Stefanie Wuhrer	06 - 09	PhD (Senate Medal)	Computer Vision
Paz Carmi	06 - 09	PostDoc	Computational Geometry
Meng He	07 - 08	PostDoc	Computational Geometry
John Howat	07 - 08	Masters	Computational Geometry
Pokong Lai	08 summer	NSERC USRA	Computational Geometry
Vafa Khoshaein	08 summer	NSERC USRA	Image Processing
Mathieu Couture	05 - 08	PhD (Senate Medal)	Wireless Networks
Yihui Tang	02 - 08	PhD	Data Structures for Data Streams
John Howat	07 summer	Summer Research	Computational Geometry
Irwin Zaid	07 summer	Summer Research	Computational Geometry
Christian Muise	07 summer	Summer Research	Computational Geometry
Vida Dujmovic	04 - 06	PostDoc	Graph Drawing
Stefanie Wuhrer	05 - 06	Masters	Clamshell Casting
Evan Hahn	04 - 06	Masters	Persistent Building Interior Generation
David Hallam	00 - 06	Masters (Part-time)	Image Processing
Christian Leger	05 and 06	NSERC Summer	Data Structures
Derek Bradley	03 - 05	Masters - Senate Medal	Computer Vision
David Wood	01 - 04	PostDoc	Graph Drawing
Anthony Whitehead	01 - 04	PhD - OCRI Best Grad Student	Image Processing

Name	Years	Degree	Thesis Topic
Aaron Lee	01 - 04	Masters	Constrained Spanners
Veronique Audet	00 - 02	Masters	Image Processing for Cancer Detection
Chris McDonald	00 - 02	Masters	Augmented Reality
Shahzad Malik	00 - 01	Masters - University Medal	Real-time Augmented Reality
Qingda Wang	00 - 01	Masters - Senate Medal	Obnoxious Facility Location
Jillian Hockey	98 - 01	Masters	Experimental Results on the Weber Center
Dominic Lessard	98 - 00	Masters	Optimally Tiling a Room
Jean Denis Caron	98 - 00	Masters	Textline Orientation
Jason Morrison	97 - 02	PhD	Geometric Optimization Problems
Patrick Morin	97 - 01	PhD - Senate Medal	Online Routing in Graphs
Said Benameur	97 - 98	Masters	A study of graph spanners

Undergraduate Honors Project Supervision:

Name	Year	4th year B.C.S. Project
Irving Ou	2023	Randomized Linear Programming
Joyce Bacic	2022	Constrained k-enclosing sets
Mia Chen	2022	Variants of Linear Programming
Nicholas Lalonde	2022	Low degree plane spanners
Patrick Shipton	2021	Properties of optimal BSTs
Ali Elkholy	2021	Image Similarity
Jacob Boertjes	2020	Nearest Neighbor Problems
Jaime Herzog	2020	Automated Cut Detection
Zoltan (William) Kalnay	2020	Amortized Skip Lists
Nathaniel (Austin) Mitchell	2020	Semi-splay trees
Bence Meszaros	2020	Delaunay Triangulations Simplified
Richard St. John	2020	The Geometry of Binary Search Trees
Christopher Blackman	2019	Rendez-vous problems
Noah Steinberg	2019	Hashing
Zachary Fry	2019	Client-Server problems
Jeremy Melone	2019	Smallest enclosing disk containing k points
Tian Siyang	2014	Data Structures
Anthony D'Angelo	2014	Computer Vision
Jean Phillipe Landry	2013	Text Compression
Drew Martin	2012	Collision Detection
Chaman Chahal	2012	Scheduling System
Stefan Valiau	2011	Searching in Compressed Text
Po Kong Lai	2011	Approximation algorithms for curves and terrains
Michael Cayer	2010	Comparison of Compression Techniques
Gail Banaszkiewicz	2007	Computer Vision
Mark Wong	2007	Computer Vision
Christian Leger	2005	Image Segmentation
Mark Wong	2004	Computer Generated Models
Rossen Atanosov	2004	Experiments with Triangular Meshes
Peter Tang	2004	An intelligent advertisement aid
Cara Lin	2002	Experiments with Data Structures
Steven Koupenov	2002	Planar Graph Embeddings
Jon Harris	2001	Feature Extration in Maps
Irina Guilman	2001	Computing the thinnest Annulus
Jason Walton	2001	NP-Hardness and approximation algorithms
Wojciech Kozlowski	2001	KD-trees and range searching

Name	Year	4th year B.C.S. Project
Ralf Dagher	2000	Medial Axis Computation
David Hallam	2000	3D Delaunay Spanners
Guillermo Tempo	2000	Skip Lists
Tara Graves	1999	Vehicule Routing
Ian Bainaker	1998	Triangulation Spanners
Patrick Hamel	1997	Decomposing the surface of a Polyhedron into Terrains

Directed Studies Course:

Name	Topic	Duration
Mike Bremner	Computational Geometry	W21
Kyle Thompson	Advanced Data Structures	F16
Dabeluchi Ndubisi	Advanced Data Structures	F16
Ben Seamone	Geometric Spanners	W09
Gail Banaszkiewicz	Computer Vision	W07
David Shultz	Computer Vision	W07
Rossen Atanasov	Computer Vision	S05
Christian Leger	Computer Vision	S05
Veronique Audet	Image Processing (Inpainting)	S02
Dominic Laberge	Kinetic Data Structure	F01
Norbert Zeh	Dynamic Data Structures	W00
Patrick Morin	Dynamic Data Structures	F99
Jason Morrison	Dynamic Data Structures	F99
Dominic Lessard	Optimization Problems	W99
Dominic Lessard	Partitioning Problems	F98

Collaborators:

I have collaborated with the following 195 researchers from around the world (note that my students' and former students' names appear in boldface): *O. Aichholzer, S. Allan, R. Atanassov, B. Aronov, M. Abellanas, P. Agarwal, H.-K. Ahn,* **G. Aloupis**, **T. Asano**, *B. Asberg, Z. Abel, Z. Azouz,* **V. Audet**, *D. Avis, S. Won Bae,* **A. Beingessner**, *N. Benbernou,* **L. Felipe Barba**, *M. Barbeau, G. Barequet, G. Di Battista, S. Beauchemin, P. Belleville, S. Bereg, M. de Berg, T. Biedl, G. Blanco,* **D. Bradley**, *D. Bremner, A. Brodnik, J. Buss, B. Ballinger, A. Brunton,* **G. Carmichael**, **J. Cardinal**, **L. Chaitman**, **E. Chen**, **M. Couture**, **P. Carmi**, **V. Campos**, *S. Collette, S. Collette, S. Cabello, S. Carlsson,* **J-D. Caron**, *A. Chan, O. Cheong, S. Cheng, A. Chalifour, N. Coll, J. Czyzowicz, A. Dean, F. Dehne, E. D. Demaine, S. Durocher, M. Demaine, K. Douïeb, L. Devroye, M. Dickerson, K. Dobrindt, M. Damian, A. Dumitrescu,* **V. Dujmović**, *W. Evans, H. Everett, S. Fekete, R. Fagerberg, R. Flatland, M. Farshi, T. Fevens, R. Fleischer, J. Gao, C. Gray,* **C. Grimm**, *A. García, J. García, K. Ghoudi, F. Gomez, M. Goodrich, M. de Groot, J. Gudmundsson, L. Guibas, H. Guo,* **M. He**, **N. Hoda**, **J. Howat**, *D. Halperin, N. Hanusse, M. Houle, F. Hurtado,* **E. Hahn**, *J. Hutchinson, J. Iacono,* **D. Jansens**, *M. Katz, C. Kaklamanis, M. Korman, S. Kominers, D. Kirkpatrick, M. Keil, L. Kirousis, E. Kranakis, M. van Kreveld, D. Krizanc,* **A. Lee**, *R. Laganière, S. Langerman, M. Latzel,* **P. Lai**, **J-L. De Carufel**, *M. Loffler, W. Lenhart,* **D. Lessard**, *Z. Li, G. Liotta, A. López-Ortiz, A. Lubiw, A. Mukhopadhyay, A. Maheshwari, M. Mora, J. Matousek, M. McAllister, H. Meijer, P. Morin, J. Morrison, J. I. Munro, C. Nicolás, G. Narasimhan, L. Narayanan, F. Nouboud, D. Nussbaum, E. Omana-Pulido, M. Overmars,* **V . Pathak**, *B. Palop, M. Paquette, A. Por, A. Pelc, D. Peleg, S. Ramaswami, P. Ramos,* **A. van Renssen**, *S. Roy, D. Rappaport, J. O'Rourke, E. Rivera-Campo, K. Romanik, T. Roos, G. Rote, G. Roth, C. Shu, J. Sack, V. Sacristan, B. Seamone, C. Sampson, C. Seara, M. Saumell, J.A. Sellares, S. Sethia, T. Shermer, M. Smid, M. Smid, J. Snoeyink, D. Souvaine, B. Speckmann, I. Stojmenović, J. Szanto,* **Y. Tang**, *J. Tejel, G. T. Toussaint, P. Taslakian, A. Turki, J. Urrutia, R. Uehara, J. Vahrenhold,* **S. Verdonschot**, *V. Verma, M. Vargas, P. Valtr, A. Vigneron, L. Vought,* **Q. Wang**, **A. Whitehead**, **S. Wuhrer**, *S. Whitesides, G. Wilfong, S. Wismath,* **D. Wood**, **D. Xu**, *S. Yu, M. Yagnatinsky, J. Zaks, N. Zeh, C. Zelle, B. Zhu,*

Invited lectures:

Date	Place and Lecture
Feb 2022	Keynote Speaker, ICCG, Saeed Mehrabi Memorial Lecture: The final problem I worked on with Saeed
Dec 2021	Keynote Speaker, ISAAC, Spanning Properties of Variants of the Delaunay Graph
Mar 2021	Invited Speaker, Tufts University, Finding a path without a map.
Feb 2020	Encounter with Canada Why Computer Science?
Oct 2019	College Notre-Dame, Path planning in networks.
Jan 2019	College Notre-Dame, How does your GPS work?
June 2018	Invited Speaker, Association Mathematique du Quebec, GPS routing and colouring points
Apr 2018	Research Seminar, Waterloo, Online Competitive Routing on Delaunay Graphs and its Variants
Mar 2018	Keynote Speaker, EuroCG, Online Competitive Routing on Delaunay Graphs and its Variants
Nov 2017	Invited Speaker, Shonan Research Seminar, On Plane Geometric Spanners
Oct 2017	Distinguished Research Seminar, Queens University, How to find your way without a map
Oct 2017	Research Seminar, NYU, Online routing in geometric graphs
Oct 2017	Research Seminar, NYU, On spanning properties of Delaunay graphs
June 2017	Invited Speaker, Association Mathematique du Quebec, Online Routing
May 2017	College Notre-Dame, Coloring points
Apr 2017	U of Rome, 4 talks on Spanners and Routing
Jun 2016	Invited Speaker, STOC/SoCG Workshop on spanners, On Geometric Spanners
Sept 2015	Invited Speaker JCDCG 2015, Ferran Hurtado: True Rennaissance Man
Aug 2015	Invited Speaker CCCG 2015, Flips
Nov 2014	Laval Univ., Flips
Jan 2014	U of Bordeaux (Labri), Flips
Nov 2013	Dalhousie Univ., Competitive routing on half-θ_6
Sept 2013	Laval Univ., On Geometric Spanners
Sept 2013	Univ. of Manitoba, Routing on a Variant of the Delaunay Triangulation
Feb 2013	Sharif University, Various properties of Plane Spanners
Feb 2013	Amirkabir University, Winter School on Computational Geometry
Jan 2013	Univ. du Québec en Outaouais, Routing on a variant of the Delaunay Triangulation
Nov 2012	U of Bordeaux (Labri), Routing on a variant of the Delaunay Triangulation
Sept 2012	Invited Speaker, Graph Drawing 2012 (Microsoft), Flips
Sept 2012	Carleton EDC, How an allergy lead to the development of an interesting teaching tool
June 2012	Invited Speaker, ISVD 2012 (Rutgers), On spanning properties of various Delaunay graphs
Apr 2012	Georgia Tech University, Competitive Routing on Plane Graphs.
Nov 2011	Tufts University, Competitive Routing on Plane Graphs.
Nov 2011	Tufts University, Flips in Planar Graphs
Oct 2011	Univ. Poly. de Catalunya, Competitive Routing on Plane Graphs.
Jun 2011	Invited Speaker, ECG 2011 (Madrid), On plane geometric spanners
Nov 2010	U of Bordeaux (Labri), On Bounded Degree Plane Spanners
Nov 2010	U of Bordeaux (Labri), Plane Spanners - A Survey
Sep 2010	Carleton EDC, How an allergy lead to the development of an interesting teaching tool
Sep 2010	Carleton, How to write a successful application
Feb 2010	Carleton, How to write a research proposal
Dec 2009	Carleton EDC, How an allergy lead to the development of an interesting teaching tool
Nov 2009	Dagstuhl, On plane geometric spanners
July 2009	Keynote speaker, Canadian Undergraduate Math Conf., Carleton, Geometric Spanners
May 2009	U. Libre Brussels, Flips
Mar 2009	U of Kaiserslautern, Flips in triangulations
Mar 2009	Invited Speaker, EUROCG 2009, On plane geometric spanners
Oct 2008	U. of Waterloo, Path planning without a map
July 2008	U. Southern Denmark, On Flips in Triangulations
May 2008	Invited Speaker, Ontario Combinatorics Workshop, A review of geometric spanners.
Mar 2008	Queens University, How to get where you want to go without a map?
Feb 2008	Dagstuhl, On Geometric Spanners of Bounded Degree

Date	Place and Lecture
May 2007	Algorithms Seminar, Université Libre de Bruxelles, Geometric Spanners
Mar 2007	Algorithms Seminar, McGill University, On Geometric Spanners
Oct 2006	Math Society Seminar, Carleton University, Online Routing in Graphs
Feb 2006	INFONET Seminar, Carleton University, Routing in Geometric Graphs
June 2005	Plenary Address at Encuentros de Comp. Geom., Flips in Triangulations
June 2005	Univ. Poly. de Catalunya, Bottleneck Shortest Paths
May 2005	JAIST, Open Problems in Facility Location
Nov 2004	SITE Optical Network Research Centre, Online Routing in Geometric Graphs
July 2004	Dagstuhl, Bottleneck Shortest Path Queries
April 2004	M.I.T, Online Routing in Plane Graphs
Mar 2004	Dagstuhl, Succint Data Structures for Approximating Convex Functions
Jan 2004	Simon Fraser University, Simultaneous Flips in Triangulations
Oct 2003	Dagstuhl, Flips in Triangulations
Oct 2003	Univ. of Eindhoven, Parallel Flips in Triangulations
Oct 2003	Université Libre de Bruxelles , Parallel Flips in Triangulations
June 2003	AMS-RSME special session on CG, Parallel Flips in Triangulations
June 2003	Univ. Poly. de Catalunya, Online routing in geometric graphs
May 2003	Univ. Poly. de Catalunya, Planar Geometric Spanners of Bounded Degree and Low Weight
Mar. 2003	Univ. Poly. de Catalunya, Data Structures for Facility Location
Nov. 2002	Simon Fraser Univ., Online routing in planar graphs
Oct. 2002	NRC, IT Division, On Embedding Planar Graphs
June 2002	MITACS/PIMS (SFU), Facility Location with Constraints
Mar 2002	Dagstuhl, On Max-Clique Trees with Applications
Jan. 2002	Carleton/Ottawa Combinatorics, Guarding Polyhedral Terrains
Oct. 2001	Université du Québec à Hull, Online Routing in Geometric Graphs
Sept 2001	Queens University, Routing in Geometric Graphs
April 2001	Utrecht University, Online Routing in Graphs
Dec. 2000	University of Sydney, Path Planning in Triangulations

Invited Lectures (1993-2000):

Carleton University (2), McGill University (3), Université du Québec à Hull, Université du Québec à Montréal (2), Middlebury College, University of Arizona (2), Université du Québec à Trois-Rivières (4), Universidad Politechnica de Madrid (3), Universidad Politechnica de Catalunya (2), Simon Fraser University, Université de Montréal, Centro de Investicacion y de Estudios Avanzados del Instituto Politecnico Nacional, University of Ottawa.

Contributions to the Scientific Community:

Year	Position	Activity
2024	Program Committee	CCCG 2024, St. Catherines, ON
2024	NSERC Institutional Leader	Carleton Representative at NSERC
2023	Committee Member	Early Researcher Award (Ont Govt)
2023	Program Committee	Algorithms and Data Structures Symposium (WADS), Montreal
2023	Program Committee	CCCG 2023, Montreal
2023	Committee Member	CFI: Multidisciplinary Assessment Committee
2022	Committee Member	German Research Foundation (Deutsche Forschungsgemeinschaft DFG)
2022	Program Committee	CCCG 2022
2021	Committee Member	Early Researcher Award (Ont Govt)
2021	Program Committee	CCCG 2021
2021	Program Committee	Canadam 2021
2020	Committee Member	Early Researcher Award (Ont Govt)
2020	Committee Member	CFI: Multidisciplinary Assessment Committee

Year	Position	Activity
2020	Program Committee	LATIN 2020
2020	Program Committee	SoCG Media Exposition 2020
2019	Committee Member	Early Researcher Award (Ont Govt)
2019	Program Committee	Graph Drawing 2019
2019	Program Committee	SoCG 2019
2019	Program Committee	CCCG 2019
2019	Organizing Committee	CCCG 2019
2019	Co-organizer	Workshop on Computational Geometry, Bellairs McGill
2019	Program Committee	Encuentros de Geomtria Computacional (EGC), Spain.
2019	Program Committee	WALCOM 2019, India.
2019	Committee Member	NSERC Chair for Women in Science Renewal Committee
2018	Committee Member	Early Researcher Award (Ont Govt)
2018	Co-organizer	Workshop on Computational Geometry, Bellairs McGill
2017	Program Committee	Encuentros de Geometria Computacional (EGC)
2017	Program Committee	EuroCG 2017
2017	Organizing Committee	Canadian Conference on Computational Geometry
2017	Co-organizer	Workshop on Computational Geometry, Fields Institute, Ottawa
2017	Co-organizer	Workshop on Computational Geometry, Bellairs McGill
2016	Committee Chair	Early Researcher Award (Ont Govt)
2016	Co-organizer	Workshop on Computational Geometry, Bellairs McGill
2016	Organizing Committee	Canadian Conference on Computational Geometry
2016-19	Chair of Steering Committee	Canadian Conference on Computational Geometry
2016	Program Committee	Canadian Conference on Computational Geometry
2016	Program Committee	Encuentros de Geometria Computacional (EGC)
2016	Guest Editor	TCS Special Issue for Algosensor 2015
2015	Committee Chair	Early Researcher Award (Ont Govt)
2015	Guest Editor	CGTA Special Issue in Memoriam Ferran Hurtado
2015	Program Track Chair	Wireless/Geometry Algosensor 2015
2015	Program Committee	Encuentros de Geometria Computacional (EGC)
2015	Co-organizer	Workshop on Computational Geometry, BIRS
2015	Co-organizer	Workshop on Computational Geometry, Bellairs McGill
2014	Program Committee	Graph Drawing
2014	Committee Member	Early Researcher Award, Ontario Govt
2014	Program Committee	EuroCG
2014 -	Associate Editor	Journal of Computer and System Science (JCSS)
2014	Program Committee	Encuentros de Geometria Computacional (EGC)
2014	Program Committee	Conf. on Wireless and Mobile (APWiMob), Bali
2014	Program Committee	Canadian Conf. on Comp. Geom (CCCG), Halifax
2014	Co-organizer	Workshop on Computational Geometry, Bellairs McGill
2013	Program Committee	Algosensor 2013
2013	Program Committee	Encuentros de Geometria Computacional (EGC)
2013	Co-organizer	Workshop on Computational Geometry, Bellairs McGill
2012	Editorial Board	Journal of Graph Algorithms and Applications (JGAA)
2012	Editorial Board	ISRN Discrete Mathematics Journal
2012	Program Committee	Encuentros de Geometria Computacional (EGC)
2012	Committee Member	FQRNT Evaluation Committee
2012	Committee member	Comp Geom: Applications, Practice and Theory (CG:APT)
2012-15	President	NSERC Committee on Scholarships and Fellowships
2012-15	Committee member	NSERC Committee on Grants and Scholarships (COGS)
2012	Program Committee	Analysis of Algorithms (A of A), Montreal
2011	Program Committee	Algorithms and Data Structures Symposium (WADS), NY
2011-13	Associate Editor	The Visual Computer, Springer Verlag

Year	Position	Activity
2011	Program Committee	ACM Symp. on Comp. Geom (SoCG), Paris
2011	Program Committee	Int. Conf. Dist. Comp. for Sensor Networks (DCOSS)
2011	Program Committee	Canadian Conf. on Comp. Geom (CCCG), PEI
2010	Board Member	Center for Graduate Education, JAIST
2010	Committee Member	NRAS Research Team Evaluation Committee in BC
2010	Committee Member	Mitacs Elevate
2010	Committee Member	FQRNT Evaluation Committee
2010	Program Committee	ALGOSENSORS
2010	Program Committee	Canadian Conf. on Comp. Geom (CCCG), Winnipeg
2009	Program Committee	Int. Conf. Dist. Comp. for Sensor Networks (DCOSS)
2009	Program Committee	Canadian Conf. on Comp. Geom (CCCG), Vancouver
2008	Program Committee	Canadian Conf. on Comp. Geom (CCCG), Montréal
2008	Committee Member	FQRNT Evaluation Committee
2007	Program and Conference Chair	Canadian Conf. on Comp. Geom (CCCG)
2007	Program Committee	AdHocNow, Mexico
2007	Committee Member	FQRNT Evaluation Committee
2007	Program Committee	Int. Symp on Algorithms and Computation
2007	Program Committee	IEEE Wireless Comm. and Networking
2006	Program Committee	AdHocNow, Canada
2006	Program Committee	CATS, Australia
2006	Committee Member	FQRNT Evaluation Committee
2006	Editor	Computational Geometry: Theory and Appl., Special Issue
2005	Co-organizer	Workshop on Computational Geometry, Gatineau
2005	Program Committee	AdHocNow, Mexico
2005	Editor	Algorithmica Special Issue with P. Morin
2005	Editor	Theory of Computing Systems, Special Issue
2005	Committee Member	FQRNT Evaluation Committee
2005	Editor	Computational Geometry: Theory and Appl., Special Issue
2005	Program Committee	Canadian Conference on Comp. Geom
2005	Organizing Committee	Canadian Conference on Comp. Geom
2004	Organizing Committee	Canadian Conference on Comp. Geom
2004	Program Committee	28th Australasian Computer Science Conference
2004	Committee Member	FQRNT Centre of Excellence Evaluation Committee
2003	Committee Member	FQRNT Centre of Excellence Evaluation Committee
2003	Organizing Committee	Canadian Conference on Comp. Geom, Halifax
2003	Program Committee	International Symp. on Algorithms and Computation
2003	Program Committee	ACM Symp. on Comp. Geom, Program Committee
2003	Program Committee	27th Australasian Computer Science Conference
2003	Co-organizer	Workshop on Geometric Data Structures, Eindhoven
2002	Program and Conf. Chair	Int. Symp. on Alg. and Computation
2002	Editor	Proceedings for ISAAC, with P. Morin
2002	Co-organizer	Workshop on Facility Location, Vancouver
2002	Co-organizer	Workshop on Geometric Networks, Utrecht
2001	Program Committee	Int. Symp. on Algorithms and Computation
2000	Co-organizer	Workshop on Applied Geometric Computing, McGill
2000	Program Committee	Canadian Conf on Comp Geom
1999	Program Committee	Canadian Conf on Comp Geom
1999	Co-organizer	Workshop on Applied Geometric Computing, McGill
1998	Organizing Committee	Graph Drawing 98, McGill
1997	Program Committee	Canadian Conf on Comp Geom
1997	Co-organizer	Workshop on Geometric Computing
1996	Organizer	ACFAS special session on Comp Geom, McGill

Year	Position	Activity
1995	Organizing Committee	ACM Symp. on Computational Geometry, UBC

Referee for following:

Algorithmica, Computer Aided Design, Computational Geometry: Theory and Applications, Discrete and Computational Geometry Information Processing Letters, International Journal of Computational Geometry, Pattern Recognition, Theoretical Computer Science, McGraw Hill Publishing.

Examiner for following students:

Year	Student	Type of Examiner
2021	Antonin Lentz	External Examiner on PhD (Bordeaux)
2021	Sima Hajiaghaei Shanjani	External Examiner on PhD (Victoria)
2020	Celine Yelle	Examiner Masters (U of O)
2019	Po Lai	Examiner on PhD (University of Ottawa)
2016	Andres Montero	Examiner on PhD (University of Ottawa)
2013	Nicholas Bonichon	External Examiner on Habilitation (Bordeaux University)
2012	Quentin Godfroy	External Examiner on Phd (Bordeaux University)
2012	Ben Seamone	Internal/External Examiner on PhD (Carleton)
2012	Raheleh Niati	Internal/External Examiner on PhD (Carleton)
2011	Richard Monette	Internal/External Examiner on Masters (Carleton)
2010	Kamrul Islam	External Examiner on PhD (Queens)
2009	Ilya Volnyansky	External Examiner on Masters (U of O)
2008	Karim Douieb	External Examiner on PhD (ULB Belgium)
2008	Yago Diez	External Examiner on PhD (UPC Catalunya Spain)
2008	Hamid Zarrabi-Zadeh	External Examiner on PhD (Waterloo)
2008	Sylvain Beriault	External Examiner on Masters (U of O)
2008	Damian Merrick	External Examiner on PhD (U of Sydney)
2007	Ervin Ruci	Internal-External on Masters (Carleton)
2007	Pengcheng Xi	External Examiner on Masters (U of O)
2004	Etienne Vincent	PhD Committee member and Examiner (U of O)
2004	Harish Gopala	Internal-External on Masters (Carleton)
2004	Hassan Hajjdiab	PhD Committee member and Examiner (U of O)
2004	Andrew Miles	Internal Examiner on Masters (Carleton)
2004	Shuye Pu	Examining comittee chair on Masters (Carleton)
2003	Moaning Wang	Internal Examiner on Masters (Carleton)
2002	Felipe Contreras	External Examiner on PhD (U of O)
2002	Benny Pinontoan	Internal-External Examiner on PhD (Carleton)
2001	Heekap Ahn	External Examiner on PhD (Utrecht Netherlands)
2001	Danielle Vella	External Examiner on Masters (U of O)
2001	Mohamed Shentenawy	Internal Examiner on Masters (Carleton)
2000	Jay Adamsson	Internal-External Examiner on PhD (Carleton)
2000	Vivian Lee	Internal Examiner on Masters (Carleton)
2000	Xu Lin	External Examiner on Masters (U of O)
1999	Nicolas Fraiji	External Examiner on Masters (U of O)
1999	Jianwen Wang	Internal Examiner on Masters (U of O)
1998	Harvinder Singh	External Examiner on Masters (U of O)
1998	Richard Webber	External Examiner on PhD (U of Sydney)
1998	Toni Sellares	External Examiner on PhD (UPC)

Publications:

Submitted Papers

[1] Biedl, T., Bose, P., and Miraftab, B. On the independence number of 1-planar graphs. *TBD*, 2024.

[2] Biedl, T., Bose, P., and Murali, K. A parameterized algorithm for vertex and edge connectivity of embedded graphs. *TBD*, 2024.

[3] Bose, P., Hill, D., Smid, M., and Tuttle, T. On the spanning and routing ratios of the yao-four graph. *TBD*, 2024.

[4] Biniaz, A., Bose, P., Carufel, J.-L. D., Maheshwari, A., Miraftab, B., Odak, S., Smid, M., Smorodinsky, S., and Yuditsky, Y. On separating path and tree systems in graphs. *DMTCS*, 2023.

[5] Biniaz, A., Bose, P., and Devaney, P. Approximating average bounded-angle minimum spanning trees. *TBD*, 2023.

[6] Biniaz, A., Bose, P., and Gavoille, C. The relationship between minimum degree and maximum independent sets in planar graphs. *TBD*, 2023.

[7] Bonichon, N., Bose, P., and Garito, Y. Local routing algorithms on euclidean spanners with small diameter. *TBD*, 2023.

[8] Bose, P., Carufel, J.-L. D., and Njoo, S. The exact spanning ratio of the parallelogram delaunay graph. *TBD*, 2023.

[9] Bose, P., Carufel, J.-L. D., and Shermer, T. Pursuit-evasion in graphs: Zombies, lazy zombies and a survivor. *SIAM Journal of Discrete Math*, 2023.

[10] Bose, P., Dujmovic, V., Morin, P., Houdrouge, H., and Odak, S. Connected dominating sets in triangulations. *TBD*, 2023.

[11] Bose, P., Esteban, G., Carufel, J.-L. D., and Maheshwari, A. Approximating weighted shortest paths on non-overlapping disks. *TBD*, 2023.

[12] Bose, P., Esteban, G., Orden, D., and Silveira, R. Approximating weighted shortest paths on square and hexagonal grids. *TBD*, 2023.

[13] Bose, P., and Tuttle, T. Routing on heavy path wspd spanners. *TBD*, 2023.

[14] Bose, P., Fogel, E., Geft, T., Halperin, D., and Shamai, S. On the separation of a polyhedron from its single-part mold. *submitted*, 2021.

[15] Bose, P., Dujmovic, V., Javarsineh, M., and Morin, P. Asymptotically optimal vertex ranking of planar graphs. *Journal of Combinatorial Series B*, 2020.

[16] Bose, P., Carufel, J. D., Shaikhet, A., and Smid, M. Art gallery localization. *CGTA*, 2017.

Journal Papers

[1] Bonichon, N., Bose, P., Carufel, J. D., Despré, V., Hill, D., and Smid, M. H. M. Improved routing on the delaunay triangulation. *Discrete and Computational Geometry*, 2023, accepted.

[2] Bose, P., Carufel, J. D., Hill, D., and Smid, M. H. M. On the spanning and routing ratio of theta-four. *Discrete and Computational Geometry*, 2023, accepted.

[3] Bose, P., Carufel, J. D., Hill, D., and Smid, M. On the spanning and routing ratio of the directed theta-four graph. *Discret. Comput. Geom.*, 71(3):872–892, 2024.

[4] Akitaya, H. A., Biniaz, A., Bose, P., Carufel, J. D., Maheshwari, A., da Silveira, L. F. S. X., and Smid, M. The minimum moving spanning tree problem. *J. Graph Algorithms Appl.*, 27(1):1–18, 2023.

[5] Biniaz, A., Bose, P., and Wang, Y. Simple linear time algorithms for piercing pairwise intersecting disks. *Comput. Geom.*, 114:102011, 2023.

[6] Bonichon, N., Bose, P., Carufel, J. D., Despré, V., Hill, D., and Smid, M. Improved routing on the delaunay triangulation. *Discret. Comput. Geom.*, 70(3):495–549, 2023.

[7] Bose, P., Cardinal, J., Iacono, J., Koumoutsos, G., and Langerman, S. Competitive online search trees on trees. *ACM Trans. Algorithms*, 19(3):25:1–25:19, 2023.

[8] Bose, P., Carmi, P., Dujmovic, V., Mehrabi, S., Montecchiani, F., Morin, P., and da Silveira, L. F. S. X. Geodesic obstacle representation of graphs. *Comput. Geom.*, 109:101946, 2023.

[9] Bose, P., Esteban, G., Orden, D., and Silveira, R. I. On approximating shortest paths in weighted triangular tessellations. *Artif. Intell.*, 318:103898, 2023.

[10] Aichholzer, O., Borrazzo, M., Bose, P., Cardinal, J., Frati, F., Morin, P., and Vogtenhuber, B. Drawing graphs as spanners. *Discret. Comput. Geom.*, 68(3):774–795, 2022.

[11] Akitaya, H. A., Biniaz, A., and Bose, P. On the spanning and routing ratios of the directed Θ_6-graph. *Comput. Geom.*, 105-106:101881, 2022.

[12] Biniaz, A., Bose, P., Lubiw, A., and Maheshwari, A. Bounded-angle minimum spanning trees. *Algorithmica*, 84(1):150–175, 2022.

[13] Bose, P., Cano, P., Fagerberg, R., Iacono, J., Jacob, R., and Langerman, S. Fragile complexity of adaptive algorithms. *Theor. Comput. Sci.*, 919:92–102, 2022.

[14] Bose, P., Carmi, P., Keil, J. M., Maheshwari, A., Mehrabi, S., Mondal, D., and Smid, M. Computing maximum independent set on outerstring graphs and their relatives. *Comput. Geom.*, 103:101852, 2022.

[15] Bose, P., D'Angelo, A., and Durocher, S. On the restricted k-steiner tree problem. *J. Comb. Optim.*, 44(4):2893–2918, 2022.

[16] Bose, P., Dujmovic, V., Javarsineh, M., Morin, P., and Wood, D. R. Separating layered treewidth and row treewidth. *Discret. Math. Theor. Comput. Sci.*, 24(1), 2022.

[17] Bose, P., Mehrabi, S., and Mondal, D. Parameterized complexity of two-interval pattern problem. *Theor. Comput. Sci.*, 902:21–28, 2022.

[18] Bose, P., Cano, P., and Silveira, R. I. Affine invariant triangulations. *Comput. Aided Geom. Des.*, 91:102039, 2021.

[19] Bose, P., Carmi, P., and Shermer, T. C. Piercing pairwise intersecting geodesic disks. *Comput. Geom.*, 98:101774, 2021.

[20] Bose, P., Korman, M., van Renssen, A., and Verdonschot, S. Constrained routing between non-visible vertices. *Theor. Comput. Sci.*, 861:144–154, 2021.

[21] Bose, P., and Shermer, T. C. Attraction-convexity and normal visibility. *Comput. Geom.*, 96:101748, 2021.

[22] Carufel, J. D., Bose, P., Paradis, F., and Dujmovic, V. Local routing in wspd-based spanners. *J. Comput. Geom.*, 12(1):1–34, 2021.

[23] Bahoo, Y., Bose, P., Durocher, S., and Shermer, T. C. Computing the k-visibility region of a point in a polygon. *Theory Comput. Syst.*, 64(7):1292–1306, 2020.

[24] Biniaz, A., Bose, P., Carmi, P., Maheshwari, A., Munro, J. I., and Smid, M. H. M. Faster algorithms for some optimization problems on collinear points. *J. Comput. Geom.*, 11(1):418–432, 2020.

[25] Bose, P., Cano, P., Saumell, M., and Silveira, R. I. Hamiltonicity for convex shape delaunay and gabriel graphs. *Comput. Geom.*, 89:101629, 2020.

[26] Bose, P., Carufel, J. D., and Devillers, O. Expected complexity of routing in θ_6 and half-θ_6 graphs. *J. Comput. Geom.*, 11(1):212–234, 2020.

[27] Bose, P., Carufel, J. D., Shaikhet, A., and Smid, M. H. M. Optimal art gallery localization is np-hard. *Comput. Geom.*, 88:101607, 2020.

[28] Bose, P., Durocher, S., Mondal, D., Peabody, M., Skala, M., and Wahid, M. A. Local routing in convex subdivisions. *Int. J. Comput. Geom. Appl.*, 30(1):1–17, 2020.

[29] Bose, P., Gledel, V., Pennarun, C., and Verdonschot, S. Power domination on triangular grids with triangular and hexagonal shape. *J. Comb. Optim.*, 40(2):482–500, 2020.

[30] Bose, P., Kostitsyna, I., and Langerman, S. Self-approaching paths in simple polygons. *Comput. Geom.*, 87:101595, 2020.

[31] Bose, P., and Shermer, T. C. Gathering by repulsion. *Comput. Geom.*, 90:101627, 2020.

[32] Arseneva, E., Bose, P., Cano, P., D'Angelo, A., Dujmovic, V., Frati, F., Langerman, S., and Tappini, A. Pole dancing: 3d morphs for tree drawings. *J. Graph Algorithms Appl.*, 23(3):579–602, 2019.

[33] Bahoo, Y., Banyassady, B., Bose, P. K., Durocher, S., and Mulzer, W. A time-space trade-off for computing the k-visibility region of a point in a polygon. *Theor. Comput. Sci.*, 789:13–21, 2019.

[34] Biniaz, A., Bose, P., Crosbie, K., Carufel, J. D., Eppstein, D., Maheshwari, A., and Smid, M. H. M. Maximum plane trees in multipartite geometric graphs. *Algorithmica*, 81(4):1512–1534, 2019.

[35] Biniaz, A., Bose, P., Ooms, A., and Verdonschot, S. Improved bounds for guarding plane graphs with edges. *Graphs Comb.*, 35(2):437–450, 2019.

[36] Bose, P., Fagerberg, R., van Renssen, A., and Verdonschot, S. On plane constrained bounded-degree spanners. *Algorithmica*, 81(4):1392–1415, 2019.

[37] Bose, P., and van Renssen, A. Spanning properties of yao and theta-graphs in the presence of constraints. *Int. J. Comput. Geom. Appl.*, 29(2):95–120, 2019.

[38] Rockley, M., Hadziomerovic, A., van Walraven, C., Bose, P., Scallan, O., and Jetty, P. A new angle on aortic neck angulation measurement. *Journal of Vascular Surgery*, 70(3):756–761, 2019.

[39] Aronov, B., Bose, P., Demaine, E. D., Gudmundsson, J., Iacono, J., Langerman, S., and Smid, M. H. M. Data structures for halfplane proximity queries and incremental voronoi diagrams. *Algorithmica*, 80(11):3316–3334, 2018.

[40] Bakhshesh, D., Barba, L., Bose, P., Carufel, J. D., Damian, M., Fagerberg, R., Farshi, M., van Renssen, A., Taslakian, P., and Verdonschot, S. Continuous yao graphs. *Comput. Geom.*, 67:42–52, 2018.

[41] Biniaz, A., Bose, P., Eppstein, D., Maheshwari, A., Morin, P., and Smid, M. H. M. Spanning trees in multipartite geometric graphs. *Algorithmica*, 80(11):3177–3191, 2018.

[42] Biniaz, A., Bose, P., Maheshwari, A., and Smid, M. H. M. Plane bichromatic trees of low degree. *Discret. Comput. Geom.*, 59(4):864–885, 2018.

[43] Bose, P., Carufel, J. D., and van Renssen, A. Constrained generalized delaunay graphs are plane spanners. *Comput. Geom.*, 74:50–65, 2018.

[44] Bose, P., Hill, D., and Smid, M. H. M. Improved spanning ratio for low degree plane spanners. *Algorithmica*, 80(3):935–976, 2018.

[45] Bose, P., Korman, M., Verdonschot, S., and van Renssen, A. Routing on the visibility graph. *J. Comput. Geom.*, 9(1):430–453, 2018.

[46] Bose, P., Lubiw, A., Pathak, V., and Verdonschot, S. Flipping edge-labelled triangulations. *Comput. Geom.*, 68:309–326, 2018.

[47] Bose, P., and Ramos, P. Editorial: Special issue in memory of dr. ferran hurtado. *Comput. Geom.*, 68:1, 2018.

[48] Biniaz, A., Bose, P., Carufel, J. D., Gavoille, C., Maheshwari, A., and Smid, M. H. M. Towards plane spanners of degree 3. *J. Comput. Geom.*, 8(1):11–31, 2017.

[49] Biniaz, A., Bose, P., van Duijn, I., Maheshwari, A., and Smid, M. H. M. Faster algorithms for the minimum red-blue-purple spanning graph problem. *J. Graph Algorithms Appl.*, 21(4):527–546, 2017.

[50] Bonichon, N., Bose, P., Carufel, J. D., Perkovic, L., and van Renssen, A. Upper and lower bounds for online routing on delaunay triangulations. *Discret. Comput. Geom.*, 58(2):482–504, 2017.

[51] Bose, P., Carufel, J. D., Durocher, S., and Taslakian, P. Competitive online routing on delaunay triangulations. *Int. J. Comput. Geom. Appl.*, 27(4):241–254, 2017.

[52] Bose, P., and Carufel, J. D. A general framework for searching on a line. *Theor. Comput. Sci.*, 703:1–17, 2017.

[53] Bose, P., Carufel, J. D., Shaikhet, A., and Smid, M. H. M. Essential constraints of edge-constrained proximity graphs. *J. Graph Algorithms Appl.*, 21(4):389–415, 2017.

[54] Bose, P., Dujmovic, V., Morin, P., and Rioux-Maldague, L. New bounds for facial nonrepetitive colouring. *Graphs Comb.*, 33(4):817–832, 2017.

[55] Bose, P., Fagerberg, R., van Renssen, A., and Verdonschot, S. Competitive local routing with constraints. *J. Comput. Geom.*, 8(1):125–152, 2017.

[56] Bose, P., and Verdonschot, S. Flips in edge-labelled pseudo-triangulations. *Comput. Geom.*, 60:45–54, 2017.

[57] Ahn, H., Barba, L., Bose, P., Carufel, J. D., Korman, M., and Oh, E. A linear-time algorithm for the geodesic center of a simple polygon. *Discret. Comput. Geom.*, 56(4):836–859, 2016.

[58] Biniaz, A., Amani, M., Maheshwari, A., Smid, M. H. M., Bose, P., and Carufel, J. D. A plane 1.88-spanner for points in convex position. *J. Comput. Geom.*, 7(1):520–539, 2016.

[59] Biniaz, A., Bose, P., Maheshwari, A., and Smid, M. H. M. Plane geodesic spanning trees, hamiltonian cycles, and perfect matchings in a simple polygon. *Comput. Geom.*, 57:27–39, 2016.

[60] Bose, P., Carufel, J. D., Morin, P., van Renssen, A., and Verdonschot, S. Towards tight bounds on theta-graphs: More is not always better. *Theor. Comput. Sci.*, 616:70–93, 2016.

[61] Bose, P., Carufel, J. D., Shaikhet, A., and Smid, M. H. M. Probing convex polygons with a wedge. *Comput. Geom.*, 58:34–59, 2016.

[62] Bose, P., Douïeb, K., Iacono, J., and Langerman, S. The power and limitations of static binary search trees with lazy finger. *Algorithmica*, 76(4):1264–1275, 2016.

[63] Bose, P., Fagerberg, R., Howat, J., and Morin, P. Biased predecessor search. *Algorithmica*, 76(4):1097–1105, 2016.

[64] Bose, P., Morin, P., and van Renssen, A. The price of order. *Int. J. Comput. Geom. Appl.*, 26(3-4):135–150, 2016.

[65] Smid, M. H. M., Bose, P., Carmi, P., Damian, M., Carufel, J. D., Hill, D., Maheshwari, A., and Liu, Y. On the stretch factor of convex polyhedra whose vertices are (almost) on a sphere. *J. Comput. Geom.*, 7(1):444–472, 2016.

[66] Aichholzer, O., Bae, S. W., Barba, L., Bose, P., Korman, M., van Renssen, A., Taslakian, P., and Verdonschot, S. Reprint of: Theta-3 is connected. *Comput. Geom.*, 48(5):407–414, 2015.

[67] Barba, L., Bose, P., Damian, M., Fagerberg, R., Keng, W. L., O'Rourke, J., van Renssen, A., Taslakian, P., Verdonschot, S., and Xia, G. New and improved spanning ratios for yao graphs. *J. Comput. Geom.*, 6(2):19–53, 2015.

[68] Biniaz, A., Bose, P., Maheshwari, A., and Smid, M. H. M. Packing plane perfect matchings into a point set. *Discret. Math. Theor. Comput. Sci.*, 17(2):119–142, 2015.

[69] Bose, P., Carufel, J. D., and Durocher, S. Searching on a line: A complete characterization of the optimal solution. *Theor. Comput. Sci.*, 569:24–42, 2015.

[70] Bose, P., Carufel, J. D., Grimm, C., Maheshwari, A., and Smid, M. H. M. Optimal data structures for farthest-point queries in cactus networks. *J. Graph Algorithms Appl.*, 19(1):11–41, 2015.

[71] Bose, P., Dujmovic, V., Hoda, N., and Morin, P. Visibility-monotonic polygon deflation. *Contributions Discret. Math.*, 10(1), 2015.

[72] Bose, P., Fagerberg, R., van Renssen, A., and Verdonschot, S. Optimal local routing on delaunay triangulations defined by empty equilateral triangles. *SIAM J. Comput.*, 44(6):1626–1649, 2015.

[73] Bose, P., Morin, P., van Renssen, A., and Verdonschot, S. The ϑ_5-graph is a spanner. *Comput. Geom.*, 48(2):108–119, 2015.

[74] Aichholzer, O., Bae, S. W., Barba, L., Bose, P., Korman, M., van Renssen, A., Taslakian, P., and Verdonschot, S. Theta-3 is connected. *Comput. Geom.*, 47(9):910–917, 2014.

[75] Aloupis, G., Bose, P., Dujmovic, V., Gray, C., Langerman, S., and Speckmann, B. Triangulating and guarding realistic polygons. *Comput. Geom.*, 47(2):296–306, 2014.

[76] Bose, P., Carmi, P., Damian, M., Flatland, R. Y., Katz, M. J., and Maheshwari, A. Switching to directional antennas with constant increase in radius and hop distance. *Algorithmica*, 69(2):397–409, 2014.

[77] Bose, P., and Carufel, J. D. Minimum-area enclosing triangle with a fixed angle. *Comput. Geom.*, 47(1):90–109, 2014.

[78] Bose, P., Jansens, D., van Renssen, A., Saumell, M., and Verdonschot, S. Making triangulations 4-connected using flips. *Comput. Geom.*, 47(2):187–197, 2014.

[79] Lai, P., Samson, C., and Bose, P. Surface roughness of rock faces through the curvature of triangulated meshes. *Comput. Geosci.*, 70:229–237, 2014.

[80] Lai, P., Sampson, C., and Bose, P. Surface roughness of rock faces through the curvature of triangulated meshes. *Computers & Geosciences*, 70:229–237, 2014.

[81] Lai, P., Sampson, C., and Bose, P. Visual enhancement of 3d images of rock faces for fracture mapping. *International Journal of Rock Mechanics and Mining Sciences*, 72:325–335, 2014.

[82] Ballinger, B., Benbernou, N. M., Bose, P., Damian, M., Demaine, E. D., Dujmovic, V., Flatland, R. Y., Hurtado, F., Iacono, J., Lubiw, A., Morin, P., Adinolfi, V. S., Souvaine, D. L., and Uehara, R. Coverage with k-transmitters in the presence of obstacles. *J. Comb. Optim.*, 25(2):208–233, 2013.

[83] Bose, P., Cardinal, J., Collette, S., Hurtado, F., Korman, M., Langerman, S., and Taslakian, P. Coloring and guarding arrangements. *Discret. Math. Theor. Comput. Sci.*, 15(3):139–154, 2013.

[84] Bose, P., Carmi, P., Chaitman-Yerushalmi, L., Collette, S., Katz, M. J., and Langerman, S. Stable roommates spanner. *Comput. Geom.*, 46(2):120–130, 2013.

[85] Bose, P., Carmi, P., and Durocher, S. Bounding the locality of distributed routing algorithms. *Distributed Comput.*, 26(1):39–58, 2013.

[86] Bose, P., and Carufel, J.-L. D. Isoperimetric triangular enclosures with a fixed angle. *J. Geom.*, 104(2):229–255, 2013.

[87] Bose, P., Collette, S., Hurtado, F., Korman, M., Langerman, S., Sacristán, V., and Saumell, M. Some properties of k-delaunay and k-gabriel graphs. *Comput. Geom.*, 46(2):131–139, 2013.

[88] Bose, P., Dannies, K., Carufel, J. D., Doell, C., Grimm, C., Maheshwari, A., Schirra, S., and Smid, M. H. M. Network farthest-point diagrams. *J. Comput. Geom.*, 4(1):182–211, 2013.

[89] Bose, P., Douïeb, K., Dujmovic, V., Howat, J., and Morin, P. Fast local searches and updates in bounded universes. *Comput. Geom.*, 46(2):181–189, 2013.

[90] Bose, P., Dujmovic, V., Morin, P., and Smid, M. H. M. Robust geometric spanners. *SIAM J. Comput.*, 42(4):1720–1736, 2013.

[91] Bose, P., and Smid, M. H. M. On plane geometric spanners: A survey and open problems. *Comput. Geom.*, 46(7):818–830, 2013.

[92] Bose, P., Carmi, P., and Chaitman-Yerushalmi, L. On bounded degree plane strong geometric spanners. *J. Discrete Algorithms*, 15:16–31, 2012.

[93] Bose, P., and Carmi, P. Editorial. *Comput. Geom.*, 45(9):475, 2012.

[94] Bose, P., Chen, E. Y., He, M., Maheshwari, A., and Morin, P. Succinct geometric indexes supporting point location queries. *ACM Trans. Algorithms*, 8(2):10:1–10:26, 2012.

[95] Bose, P., Damian, M., Douïeb, K., O'Rourke, J., Seamone, B., Smid, M. H. M., and Wuhrer, S. $\pi/2$-angle yao graphs are spanners. *Int. J. Comput. Geom. Appl.*, 22(1):61–82, 2012.

[96] Bose, P., Douïeb, K., Dujmovic, V., and Howat, J. Layered working-set trees. *Algorithmica*, 63(1-2):476–489, 2012.

[97] Bose, P., Douïeb, K., and Morin, P. Skip lift: A probabilistic alternative to red-black trees. *J. Discrete Algorithms*, 14:13–20, 2012.

[98] Bose, P., Dujmovic, V., Hurtado, F., Iacono, J., Langerman, S., Meijer, H., Adinolfi, V. S., Saumell, M., and Wood, D. R. PROXIMITY GRAPHS: e, δ, Δ, χ AND ω. *Int. J. Comput. Geom. Appl.*, 22(5):439–470, 2012.

[99] Bose, P., Howat, J., and Morin, P. A distribution-sensitive dictionary with low space overhead. *J. Discrete Algorithms*, 10:140–145, 2012.

[100] Wuhrer, S., Shu, C., and Bose, P. Automatically creating design models from 3d anthropometry data. *J. Comput. Inf. Sci. Eng.*, 12(4), 2012.

[101] Abel, Z., Ballinger, B., Bose, P., Collette, S., Dujmovic, V., Hurtado, F., Kominers, S. D., Langerman, S., Pór, A., and Wood, D. R. Every large point set contains many collinear points or an empty pentagon. *Graphs Comb.*, 27(1):47–60, 2011.

[102] Aloupis, G., Bose, P., Demaine, E. D., Langerman, S., Meijer, H., Overmars, M. H., and Toussaint, G. T. Computing signed permutations of polygons. *Int. J. Comput. Geom. Appl.*, 21(1):87–100, 2011.

[103] Barbeau, M., Bose, P., Carmi, P., Couture, M., and Kranakis, E. Location-oblivious distributed unit disk graph coloring. *Algorithmica*, 60(2):236–249, 2011.

[104] Bose, P., Carmi, P., Couture, M., Smid, M. H. M., and Xu, D. On a family of strong geometric spanners that admit local routing strategies. *Comput. Geom.*, 44(6-7):319–328, 2011.

[105] Bose, P., Carmi, P., and Couture, M. Spanners of additively weighted point sets. *J. Discrete Algorithms*, 9(3):287–298, 2011.

[106] Bose, P., Carmi, P., Hurtado, F., and Morin, P. A generalized Winternitz theorem. *J. Geom.*, 100(1-2):29–35, 2011.

[107] Bose, P., Cheong, O., and Dujmovic, V. A note on the perimeter of fat objects. *Comput. Geom.*, 44(1):1–8, 2011.

[108] Bose, P., Devroye, L., Löffler, M., Snoeyink, J., and Verma, V. Almost all delaunay triangulations have stretch factor greater than pi/2. *Comput. Geom.*, 44(2):121–127, 2011.

[109] Bose, P., Maheshwari, A., Shu, C., and Wuhrer, S. A survey of geodesic paths on 3d surfaces. *Comput. Geom.*, 44(9):486–498, 2011.

[110] Bose, P., Mora, M., Seara, C., and Sethia, S. On computing enclosing isosceles triangles and related problems. *Int. J. Comput. Geom. Appl.*, 21(1):25–45, 2011.

[111] Bose, P., Carmi, P., Collette, S., and Smid, M. H. M. On the stretch factor of convex delaunay graphs. *J. Comput. Geom.*, 1(1):41–56, 2010.

[112] Bose, P., Carmi, P., Farshi, M., Maheshwari, A., and Smid, M. H. M. Computing the greedy spanner in near-quadratic time. *Algorithmica*, 58(3):711–729, 2010.

[113] Bose, P., Collette, S., Langerman, S., Maheshwari, A., Morin, P., and Smid, M. H. M. Sigma-local graphs. *J. Discrete Algorithms*, 8(1):15–23, 2010.

[114] Brunton, A., Wuhrer, S., Shu, C., Bose, P., and Demaine, E. D. Filling holes in triangular meshes using digital images by curve unfolding. *Int. J. Shape Model.*, 16(1-2):151–171, 2010.

[115] Whitehead, A., Laganiere, R., and Bose, P. Formalization of the general video temporal synchronization problem. *Electronic Letters on Computer Vision and Image Analysis*, 9(1):1–17, 2010.

[116] Wuhrer, S., Bose, P., Shu, C., O'Rourke, J., and Brunton, A. Morphing of triangular meshes in shape space. *Int. J. Shape Model.*, 16(1-2):195–212, 2010.

[117] Abellanas, M., Bose, P., García-López, J., Hurtado, F., Nicolás, C. M., and Ramos, P. On structural and graph theoretic properties of higher order delaunay graphs. *Int. J. Comput. Geom. Appl.*, 19(6):595–615, 2009.

[118] Asano, T., Bose, P., Carmi, P., Maheshwari, A., Shu, C., Smid, M. H. M., and Wuhrer, S. A linear-space algorithm for distance preserving graph embedding. *Comput. Geom.*, 42(4):289–304, 2009.

[119] Atanassov, R., Bose, P., Couture, M., Maheshwari, A., Morin, P., Paquette, M., Smid, M. H. M., and Wuhrer, S. Algorithms for optimal outlier removal. *J. Discrete Algorithms*, 7(2):239–248, 2009.

[120] Bereg, S., Bose, P., Dumitrescu, A., Hurtado, F., and Valtr, P. Traversing a set of points with a minimum number of turns. *Discret. Comput. Geom.*, 41(4):513–532, 2009.

[121] Bose, P., Carmi, P., Couture, M., Maheshwari, A., Morin, P., and Smid, M. H. M. Spanners of complete k-partite geometric graphs. *SIAM J. Comput.*, 38(5):1803–1820, 2009.

[122] Bose, P., Carmi, P., Couture, M., Maheshwari, A., Smid, M. H. M., and Zeh, N. Geometric spanners with small chromatic number. *Comput. Geom.*, 42(2):134–146, 2009.

[123] Bose, P., Dujmovic, V., Hurtado, F., Langerman, S., Morin, P., and Wood, D. R. A polynomial bound for untangling geometric planar graphs. *Discret. Comput. Geom.*, 42(4):570–585, 2009.

[124] Bose, P., Dujmovic, V., Hurtado, F., and Morin, P. Connectivity-preserving transformations of binary images. *Comput. Vis. Image Underst.*, 113(10):1027–1038, 2009.

[125] Bose, P., and Hurtado, F. Flips in planar graphs. *Comput. Geom.*, 42(1):60–80, 2009.

[126] Bose, P., Morin, P., Smid, M. H. M., and Wuhrer, S. Clamshell casting. *Algorithmica*, 55(4):666–702, 2009.

[127] Bose, P., Morin, P., Smid, M. H. M., and Wuhrer, S. Rotationally monotone polygons. *Comput. Geom.*, 42(5):471–483, 2009.

[128] Bose, P., and Mukhopadhyay, A. Editorial CCCG 2005. *Comput. Geom.*, 42(5):363, 2009.

[129] Bose, P. A note on the lower bound of edge guards of polyhedral terrains. *Int. J. Comput. Math.*, 86(4):577–583, 2009.

[130] Bose, P., Smid, M. H. M., and Xu, D. Delaunay and diamond triangulations contain spanners of bounded degree. *Int. J. Comput. Geom. Appl.*, 19(2):119–140, 2009.

[131] Bradley, D., Roth, G., and Bose, P. Augmented reality on cloth with realistic illumination. *Mach. Vis. Appl.*, 20(2):85–92, 2009.

[132] Abellanas, M., Bose, P., Olaverri, A. G., Hurtado, F., Ramos, P., Rivera-Campo, E., and Tejel, J. On local transformations in plane geometric graphs embedded on small grids. *Comput. Geom.*, 39(2):65–77, 2008.

[133] Bose, P., Dujmovic, V., Hurtado, F., Morin, P., Langerman, S., and Wood, D. R. A polynomial bound for untangling geometric planar graphs. *Electron. Notes Discret. Math.*, 31:213–218, 2008.

[134] Bose, P., Dujmovic, V., Krizanc, D., Langerman, S., Morin, P., Wood, D. R., and Wuhrer, S. A characterization of the degree sequences of 2-trees. *J. Graph Theory*, 58(3):191–209, 2008.

[135] Bose, P., and Fevens, T. Editorial. *Comput. Geom.*, 39(1):1, 2008.

[136] Bose, P., Guo, H., Kranakis, E., Maheshwari, A., Morin, P., Morrison, J., Smid, M. H. M., and Tang, Y. On the false-positive rate of bloom filters. *Inf. Process. Lett.*, 108(4):210–213, 2008.

[137] Chan, A., Dehne, F. K. H. A., Bose, P., and Latzel, M. Coarse grained parallel algorithms for graph matching. *Parallel Comput.*, 34(1):47–62, 2008.

[138] Couture, M., Barbeau, M., Bose, P., and Kranakis, E. Incremental construction of k-dominating sets in wireless sensor networks. *Ad Hoc Sens. Wirel. Networks*, 5(1-2):47–68, 2008.

[139] Aloupis, G., Bose, P., and Morin, P. Reconfiguring triangulations with edge flips and point moves. *Algorithmica*, 47(4):367–378, 2007.

[140] Bose, P., Coll, N., Hurtado, F., and Sellarès, J. A. A general approximation algorithm for planar maps with applications. *Int. J. Comput. Geom. Appl.*, 17(6):529–554, 2007.

[141] Bose, P., Czyzowicz, J., Gao, Z., Morin, P., and Wood, D. R. Simultaneous diagonal flips in plane triangulations. *J. Graph Theory*, 54(4):307–330, 2007.

[142] Bose, P., Demaine, E. D., Hurtado, F., Iacono, J., Langerman, S., and Morin, P. Geodesic ham-sandwich cuts. *Discret. Comput. Geom.*, 37(3):325–339, 2007.

[143] Bose, P., and Devroye, L. On the stabbing number of a random delaunay triangulation. *Comput. Geom.*, 36(2):89–105, 2007.

[144] Bose, P., Maheshwari, A., Morin, P., Morrison, J., Smid, M. H. M., and Vahrenhold, J. Space-efficient geometric divide-and-conquer algorithms. *Comput. Geom.*, 37(3):209–227, 2007.

[145] Wuhrer, S., Bose, P., Morin, P., and Smid, M. Algorithms for designing clamshell molds. *Computer-Aided Design and Applications*, 4(1-4):1–10, 2007.

[146] Wuhrer, S., Shu, C., Bose, P., and Azouz, Z. B. Posture invariant correspondence of incomplete triangular manifolds. *Int. J. Shape Model.*, 13(2):139–157, 2007.

[147] Bereg, S., Bose, P., and Kirkpatrick, D. G. Equitable subdivisions within polygonal regions. *Comput. Geom.*, 34(1):20–27, 2006.

[148] Bose, P., Cabello, S., Cheong, O., Gudmundsson, J., van Kreveld, M. J., and Speckmann, B. Area-preserving approximations of polygonal paths. *J. Discrete Algorithms*, 4(4):554–566, 2006.

[149] Bose, P., Devroye, L., Evans, W. S., and Kirkpatrick, D. G. On the spanning ratio of gabriel graphs and beta-skeletons. *SIAM J. Discret. Math.*, 20(2):412–427, 2006.

[150] Bose, P., Dujmovic, V., and Wood, D. R. Induced subgraphs of bounded degree and bounded treewidth. *Contributions Discret. Math.*, 1(1), 2006.

[151] Bose, P., Hurtado, F., Rivera-Campo, E., and Wood, D. R. Partitions of complete geometric graphs into plane trees. *Comput. Geom.*, 34(2):116–125, 2006.

[152] Barequet, G., Bose, P., Dickerson, M. T., and Goodrich, M. T. Optimizing a constrained convex polygonal annulus. *J. Discrete Algorithms*, 3(1):1–26, 2005.

[153] Bose, P., Gudmundsson, J., and Smid, M. H. M. Constructing plane spanners of bounded degree and low weight. *Algorithmica*, 42(3-4):249–264, 2005.

[154] Bose, P., and Morin, P. Guest editors' foreword. *Algorithmica*, 42(1):1–2, 2005.

[155] Bose, P., and van Kreveld, M. J. Generalizing monotonicity: on recognizing special classes of polygons and polyhedra. *Int. J. Comput. Geom. Appl.*, 15(6):591–608, 2005.

[156] Bose, P., Czyzowicz, J., Morin, P., and Wood, D. R. The maximum number of edges in a three-dimensional grid-drawing. *J. Graph Algorithms Appl.*, 8:21–26, 2004.

[157] Bose, P., Gudmundsson, J., and Morin, P. Ordered theta graphs. *Comput. Geom.*, 28(1):11–18, 2004.

[158] Bose, P., Maheshwari, A., Narasimhan, G., Smid, M. H. M., and Zeh, N. Approximating geometric bottleneck shortest paths. *Comput. Geom.*, 29(3):233–249, 2004.

[159] Bose, P., and Morin, P. Competitive online routing in geometric graphs. *Theor. Comput. Sci.*, 324(2-3):273–288, 2004.

[160] Bose, P., and Morin, P. Online routing in triangulations. *SIAM J. Comput.*, 33(4):937–951, 2004.

[161] Bose, P., and Morin, P. Testing the quality of manufactured disks and balls. *Algorithmica*, 38(1):161–177, 2004.

[162] Bose, P., Morin, P., and Vigneron, A. Packing two disks into a polygonal environment. *J. Discrete Algorithms*, 2(3):373–380, 2004.

[163] Bose, P., Smid, M. H. M., and Wood, D. R. Light edges in degree-constrained graphs. *Discret. Math.*, 282(1-3):35–41, 2004.

[164] de Berg, M., Bose, P., Cheong, O., and Morin, P. On simplifying dot maps. *Comput. Geom.*, 27(1):43–62, 2004.

[165] Bose, P., Everett, H., and Wismath, S. K. Properties of arrangement graphs. *Int. J. Comput. Geom. Appl.*, 13(6):447–462, 2003.

[166] Bose, P., Kirkpatrick, D. G., and Li, Z. Worst-case-optimal algorithms for guarding planar graphs and polyhedral surfaces. *Comput. Geom.*, 26(3):209–219, 2003.

[167] Bose, P., Krizanc, D., Langerman, S., and Morin, P. Asymmetric communication protocols via hotlink assignments. *Theory Comput. Syst.*, 36(6):655–661, 2003.

[168] Bose, P., Maheshwari, A., and Morin, P. Fast approximations for sums of distances, clustering and the fermat-weber problem. *Comput. Geom.*, 24(3):135–146, 2003.

[169] Bose, P., van Kreveld, M. J., Maheshwari, A., Morin, P., and Morrison, J. Translating a regular grid over a point set. *Comput. Geom.*, 25(1-2):21–34, 2003.

[170] Ahn, H., de Berg, M., Bose, P., Cheng, S., Halperin, D., Matousek, J., and Schwarzkopf, O. Separating an object from its cast. *Comput. Aided Des.*, 34(8):547–559, 2002.

[171] Bose, P., Brodnik, A., Carlsson, S., Demaine, E. D., Fleischer, R., López-Ortiz, A., Morin, P., and Munro, J. I. Online routing in convex subdivisions. *Int. J. Comput. Geom. Appl.*, 12(4):283–296, 2002.

[172] Bose, P., Devroye, L., and Evans, W. S. Diamonds are not a minimum weight triangulation's best friend. *Int. J. Comput. Geom. Appl.*, 12(6):445–454, 2002.

[173] Bose, P., Hurtado, F., Meijer, H., Ramaswami, S., Rappaport, D., Sacristán, V., Shermer, T. C., and Toussaint, G. T. Finding specified sections of arrangements: 2d results. *J. Math. Model. Algorithms*, 1(1):3–16, 2002.

[174] Bose, P., Hurtado, F., Omaña-Pulido, E., Snoeyink, J., and Toussaint, G. T. Some aperture-angle optimization problems. *Algorithmica*, 33(4):411–435, 2002.

[175] Bose, P., Kranakis, E., Kaklamanis, C., Kirousis, L. M., Krizanc, D., and Peleg, D. Station layouts in the presence of location constraints. *J. Interconnect. Networks*, 3(1-2):1–17, 2002.

[176] Bose, P., Lubiw, A., and Munro, J. I. Efficient visibility queries in simple polygons. *Comput. Geom.*, 23(3):313–335, 2002.

[177] Bose, P., and Morin, P. An improved algorithm for subdivision traversal without extra storage. *Int. J. Comput. Geom. Appl.*, 12(4):297–308, 2002.

[178] Bose, P. On embedding an outer-planar graph in a point set. *Comput. Geom.*, 23(3):303–312, 2002.

[179] Bose, P., Ramaswami, S., Toussaint, G. T., and Turki, A. Experimental results on quadrangulations of sets of fixed points. *Comput. Aided Geom. Des.*, 19(7):533–552, 2002.

[180] Biedl, T. C., Bose, P., Demaine, E. D., and Lubiw, A. Efficient algorithms for petersen's matching theorem. *J. Algorithms*, 38(1):110–134, 2001.

[181] Bose, P., Czyzowicz, J., Kranakis, E., Krizanc, D., and Maheshwari, A. Cutting circles into equal area pieces. *Geombinatorics*, 11(1):13–20, 2001.

[182] Bose, P., Houle, M. E., and Toussaint, G. T. Every set of disjoint line segments admits a binary tree. *Discret. Comput. Geom.*, 26(3):387–410, 2001.

[183] Bose, P., Morin, P., Stojmenovic, I., and Urrutia, J. Routing with guaranteed delivery in ad hoc wireless networks. *Wirel. Networks*, 7(6):609–616, 2001.

[184] Ahn, H.-K., Bose, P., Czyzowicz, J., Hanusse, N., Kranakis, E., and Morin, P. Flipping your lid. *Geombinatorics*, 10(2):57–63, 2000.

[185] Bose, P., and Toussaint, G. Computing the constrained Euclidean, geodesic and link centre of a simple polygon with applications. *Stud. Locat. Anal.*, (15):37–66, 2000.

[186] Bose, P., Gómez, F., Ramos, P., and Toussaint, G. Drawing nice projections of objects in space. *J. Vis. Commun. Image Represent.*, 10(2):155–172, 1999.

[187] Bose, P., Buss, J. F., and Lubiw, A. Pattern matching for permutations. *Inf. Process. Lett.*, 65(5):277–283, 1998.

[188] Bose, P., and Devroye, L. Intersections with random geometric objects. *Comput. Geom.*, 10(3):139–154, 1998.

[189] Bose, P., Everett, H., Fekete, S. P., Houle, M. E., Lubiw, A., Meijer, H., Romanik, K., Rote, G., Shermer, T. C., Whitesides, S., and Zelle, C. A visibility representation for graphs in three dimensions. *J. Graph Algorithms Appl.*, 2(3):1–16, 1998.

[190] Bose, P., van Kreveld, M. J., and Toussaint, G. T. Filling polyhedral molds. *Comput. Aided Des.*, 30(4):245–254, 1998.

[191] de Berg, M., Bose, P., Bremner, D., Ramaswami, S., and Wilfong, G. T. Computing constrained minimum-width annuli of point sets. *Comput. Aided Des.*, 30(4):267–275, 1998.

[192] Asberg, B., Blanco, G., Bose, P., Garcia-Lopez, J., Overmars, M. H., Toussaint, G. T., Wilfong, G. T., and Zhu, B. Feasibility of design in stereolithography. *Algorithmica*, 19(1/2):61–83, 1997.

[193] Bose, P., Bremner, D., and van Kreveld, M. J. Determining the castability of simple polyhedra. *Algorithmica*, 19(1/2):84–113, 1997.

[194] Bose, P., Guibas, L. J., Lubiw, A., Overmars, M. H., Souvaine, D. L., and Urrutia, J. The floodlight problem. *Int. J. Comput. Geom. Appl.*, 7(1/2):153–163, 1997.

[195] Bose, P., McAllister, M., and Snoeyink, J. Optimal algorithms to embed trees in a point set. *J. Graph Algorithms Appl.*, 1(2):1–15, 1997.

[196] Bose, P., Shermer, T. C., Toussaint, G. T., and Zhu, B. Guarding polyhedral terrains. *Comput. Geom.*, 7:173–185, 1997.

[197] Bose, P., and Toussaint, G. T. Characterizing and efficiently computing quadrangulations of planar point sets. *Comput. Aided Geom. Des.*, 14(8):763–785, 1997.

[198] Bose, P., Bremner, D., and Toussaint, G. T. All convex polyhedra can be clamped with parallel jaw grippers. *Comput. Geom.*, 6:291–302, 1996.

[199] Bose, P., Lenhart, W. J., and Liotta, G. Characterizing proximity trees. *Algorithmica*, 16(1):83–110, 1996.

[200] Bose, P., and Toussaint, G. T. Geometric and computational aspects of gravity casting. *Comput. Aided Des.*, 27(6):455–464, 1995.

[201] Bose, P., and Toussaint, G. T. Growing a tree from its branches. *J. Algorithms*, 19(1):86–103, 1995.

[202] Bose, P., and Toussaint, G. T. Geometric and computational aspects of manufacturing processes. *Comput. Graph.*, 18(4):487–497, 1994.

Conference Papers

[1] Bose, P., Carufel, J.-L. D., Esteban, G., and Maheshwari, A. Approximate shortest paths on weighted disks. In *Extended Abstract - EGC*, 2023.

[2] Bose, P., D'Angelo, A., and Durocher, S. Approximating the smallest k-enclosing geodesic disc in a simple polygon. In Morin, P., and Suri, S., editors, *Algorithms and Data Structures - 18th International Symposium, WADS 2023, Montreal, QC, Canada, July 31 - August 2, 2023, Proceedings*, volume 14079 of *Lecture Notes in Computer Science*, pages 179–192. Springer, 2023.

[3] Bazargani, S., Biniaz, A., and Bose, P. Piercing pairwise intersecting convex shapes in the plane. In Castañeda, A., and Rodríguez-Henríquez, F., editors, *LATIN 2022: Theoretical Informatics - 15th Latin American Symposium, Guanajuato, Mexico, November 7-11, 2022, Proceedings*, volume 13568 of *Lecture Notes in Computer Science*, pages 679–695. Springer, 2022.

[4] Biniaz, A., Bose, P., and Devaney, P. A 13/9-approximation of the average-$2\pi/3$-mst. In Bahoo, Y., and Georgiou, K., editors, *Proceedings of the 34th Canadian Conference on Computational Geometry, CCCG 2022, Toronto Metropolitan University, Toronto, Ontario, Canada, August 25-27, 2022*, pages 55–59, 2022.

[5] Bonichon, N., Bose, P., and Garito, Y. Local routing algorithms on euclidean spanners with small diameter. In Castañeda, A., and Rodríguez-Henríquez, F., editors, *LATIN 2022: Theoretical Informatics - 15th Latin American Symposium, Guanajuato, Mexico, November 7-11, 2022, Proceedings*, volume 13568 of *Lecture Notes in Computer Science*, pages 696–712. Springer, 2022.

[6] Bose, P., Carufel, J. D., and Shermer, T. C. On the zombie number of various graph classes. In Castañeda, A., and Rodríguez-Henríquez, F., editors, *LATIN 2022: Theoretical Informatics - 15th Latin American Symposium, Guanajuato, Mexico, November 7-11, 2022, Proceedings*, volume 13568 of *Lecture Notes in Computer Science*, pages 527–543. Springer, 2022.

[7] Bose, P., Carufel, J. D., and Shermer, T. C. Pursuit-evasion in graphs: Zombies, lazy zombies and a survivor. In Bae, S. W., and Park, H., editors, *33rd International Symposium on Algorithms and Computation, ISAAC 2022, December 19-21, 2022, Seoul, Korea*, volume 248 of *LIPIcs*, pages 56:1–56:13. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2022.

[8] Bose, P., Esteban, G., and Maheshwari, A. Weighted shortest path in equilateral triangular meshes. In Bahoo, Y., and Georgiou, K., editors, *Proceedings of the 34th Canadian Conference on Computational Geometry, CCCG 2022, Toronto Metropolitan University, Toronto, Ontario, Canada, August 25-27, 2022*, pages 60–67, 2022.

[9] Bose, P., Esteban, G., Orden, D., and Silveira, R. I. On approximating shortest paths in weighted triangular tessellations. In Mutzel, P., Rahman, M. S., and Slamin, editors, *WALCOM: Algorithms and Computation - 16th International Conference and Workshops, WALCOM 2022, Jember, Indonesia, March 24-26, 2022, Proceedings*, volume 13174 of *Lecture Notes in Computer Science*, pages 409–421. Springer, 2022.

[10] Bose, P., Esteban, G., Orden, D., and Silveira, R. Spanning ratio of shortest paths in weighted square tessellations. In *Extended Abstract - EuroCG*, 2022.

[11] Bose, P., Morin, P., and Odak, S. An optimal algorithm for product structure in planar graphs. In Czumaj, A., and Xin, Q., editors, *18th Scandinavian Symposium and Workshops on Algorithm Theory, SWAT 2022, June 27-29, 2022, Tórshavn, Faroe Islands*, volume 227 of *LIPIcs*, pages 19:1–19:14. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2022.

[12] Akitaya, H. A., Biniaz, A., Bose, P., Carufel, J. D., Maheshwari, A., da Silveira, L. F. S. X., and Smid, M. The minimum moving spanning tree problem. In Lubiw, A., and Salavatipour, M. R., editors, *Algorithms and Data Structures - 17th International Symposium, WADS 2021, Virtual Event, August 9-11, 2021, Proceedings*, volume 12808 of *Lecture Notes in Computer Science*, pages 15–28. Springer, 2021.

[13] Akitaya, H. A., Biniaz, A., and Bose, P. On the spanning and routing ratios of the directed $\vartheta _6$-graph. In Lubiw, A., and Salavatipour, M. R., editors, *Algorithms and Data Structures - 17th International Symposium, WADS 2021, Virtual Event, August 9-11, 2021, Proceedings*, volume 12808 of *Lecture Notes in Computer Science*, pages 1–14. Springer, 2021.

[14] Biniaz, A., Bose, P., and Wang, Y. Simple linear time algorithms for piercing pairwise intersecting disks. In He, M., and Sheehy, D., editors, *Proceedings of the 33rd Canadian Conference on Computational Geometry, CCCG 2021, August 10-12, 2021, Dalhousie University, Halifax, Nova Scotia, Canada*, pages 228–236, 2021.

[15] Bose, P., Cano, P., Fagerberg, R., Iacono, J., Jacob, R., and Langerman, S. Fragile complexity of adaptive algorithms. In Calamoneri, T., and Corò, F., editors, *Algorithms and Complexity - 12th International Conference, CIAC 2021, Virtual Event, May 10-12, 2021, Proceedings*, volume 12701 of *Lecture Notes in Computer Science*, pages 144–157. Springer, 2021.

[16] Bose, P., Hill, D., and Ooms, A. Improved bounds on the spanning ratio of the theta-5-graph. In Lubiw, A., and Salavatipour, M. R., editors, *Algorithms and Data Structures - 17th International Symposium, WADS 2021, Virtual Event, August 9-11, 2021, Proceedings*, volume 12808 of *Lecture Notes in Computer Science*, pages 215–228. Springer, 2021.

[17] Bose, P., Mehrabi, S., and Mondal, D. Faster multi-sided one-bend boundary labelling. In Uehara, R., Hong, S., and Nandy, S. C., editors, *WALCOM: Algorithms and Computation - 15th International Conference and Workshops, WALCOM 2021, Yangon, Myanmar, February 28 - March 2, 2021, Proceedings*, volume 12635 of *Lecture Notes in Computer Science*, pages 116–128. Springer, 2021.

[18] Bose, P. Spanning properties of variants of the delaunay graph (invited talk). In Ahn, H., and Sadakane, K., editors, *32nd International Symposium on Algorithms and Computation, ISAAC 2021, December 6-8, 2021, Fukuoka, Japan*, volume 212 of *LIPIcs*, pages 2:1–2:1. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2021.

[19] Bose, P., and Tuttle, T. Routing on heavy-path wspd-spanners. In Lubiw, A., and Salavatipour, M. R., editors, *Algorithms and Data Structures - 17th International Symposium, WADS 2021, Virtual Event, August 9-11, 2021, Proceedings*, volume 12808 of *Lecture Notes in Computer Science*, pages 613–626. Springer, 2021.

[20] Aichholzer, O., Borrazzo, M., Bose, P., Cardinal, J., Frati, F., Morin, P., and Vogtenhuber, B. Drawing graphs as spanners. In Adler, I., and Müller, H., editors, *Graph-Theoretic Concepts in Computer Science - 46th International Workshop, WG 2020, Leeds, UK, June 24-26, 2020, Revised Selected Papers*, volume 12301 of *Lecture Notes in Computer Science*, pages 310–324. Springer, 2020.

[21] Akitaya, H., Biniaz, A., Bose, P., Carufel, J.-L. D., Maheshwari, A., da Silveira, L. F. S. X., and Smid, M. The minimum moving spanning tree problem. In *Extended Abstract - ICCG*, 2020.

[22] Akitaya, H., Biniaz, A., and Bose, P. On the spanning and routing ratio of the directed θ_6-graph. In *Extended Abstract - ICCG*, 2020.

[23] Arseneva, E., Bose, P., Cano, P., and Silveira, R. I. Flips in higher order delaunay triangulations. In *Extended Abstract - EuroCG*, 2020.

[24] Arseneva, E., Bose, P., Cano, P., and Silveira, R. I. Flips in higher order delaunay triangulations. In Kohayakawa, Y., and Miyazawa, F. K., editors, *LATIN 2020: Theoretical Informatics - 14th Latin American Symposium, São Paulo, Brazil, January 5-8, 2021, Proceedings*, volume 12118 of *Lecture Notes in Computer Science*, pages 223–234. Springer, 2020.

[25] Biniaz, A., Bose, P., Lubiw, A., and Maheshwari, A. Bounded-angle minimum spanning trees. In Albers, S., editor, *17th Scandinavian Symposium and Workshops on Algorithm Theory, SWAT 2020, June 22-24, 2020, Tórshavn, Faroe Islands*, volume 162 of *LIPIcs*, pages 14:1–14:22. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2020.

[26] Bose, P., Cardinal, J., Iacono, J., Koumoutsos, G., and Langerman, S. Competitive online search trees on trees. In Chawla, S., editor, *Proceedings of the 2020 ACM-SIAM Symposium on Discrete Algorithms, SODA 2020, Salt Lake City, UT, USA, January 5-8, 2020*, pages 1878–1891. SIAM, 2020.

[27] Bose, P., Carmi, P., Durocher, S., Kamali, S., and Sajadpour, A. Non-crossing matching of online points. In Keil, J. M., and Mondal, D., editors, *Proceedings of the 32nd Canadian Conference on Computational Geometry, CCCG 2020, August 5-7, 2020, University of Saskatchewan, Saskatoon, Saskatchewan, Canada*, pages 233–239, 2020.

[28] Bose, P., Carufel, J.-L. D., and Devillers, O. Expected complexity of routing in theta-6 and half-theta-6 graphs. In *Extended Abstract - EuroCG*, 2020.

[29] Bose, P., D'Angelo, A., and Durocher, S. On the restricted 1-steiner tree problem. In Kim, D., Uma, R. N., Cai, Z., and Lee, D. H., editors, *Computing and Combinatorics - 26th International Conference, COCOON 2020, Atlanta, GA, USA, August 29-31, 2020, Proceedings*, volume 12273 of *Lecture Notes in Computer Science*, pages 448–459. Springer, 2020.

[30] Bose, P., Mehrabi, S., and Mondal, D. Parameterized complexity of two-interval pattern problem. In Albers, S., editor, *17th Scandinavian Symposium and Workshops on Algorithm Theory, SWAT 2020, June 22-24, 2020, Tórshavn, Faroe Islands*, volume 162 of *LIPIcs*, pages 16:1–16:10. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2020.

[31] Arseneva, E., Bose, P., Carufel, J. D., and Verdonschot, S. Reconstructing a convex polygon from its \omega ω -cloud. In van Bevern, R., and Kucherov, G., editors, *Computer Science - Theory and Applications - 14th International Computer Science Symposium in Russia, CSR 2019, Novosibirsk, Russia, July 1-5, 2019, Proceedings*, volume 11532 of *Lecture Notes in Computer Science*, pages 25–37. Springer, 2019.

[32] Bahoo, Y., Bose, P., Durocher, S., and Shermer, T. C. Computing the k-crossing visibility region of a point in a polygon. In Colbourn, C. J., Grossi, R., and Pisanti, N., editors, *Combinatorial Algorithms - 30th International Workshop, IWOCA 2019, Pisa, Italy, July 23-25, 2019, Proceedings*, volume 11638 of *Lecture Notes in Computer Science*, pages 10–21. Springer, 2019.

[33] Bahoo, Y., Bose, P., and Durocher, S. Watchtower for k-crossing visibility. In Friggstad, Z., and Carufel, J. D., editors, *Proceedings of the 31st Canadian Conference on Computational Geometry, CCCG 2019, August 8-10, 2019, University of Alberta, Edmonton, Alberta, Canada*, pages 203–209, 2019.

[34] Biniaz, A., Bose, P., Cardinal, J., and Payne, M. S. Three-coloring three-dimensional uniform hypergraphs. In Friggstad, Z., and Carufel, J. D., editors, *Proceedings of the 31st Canadian Conference on Computational Geometry, CCCG 2019, August 8-10, 2019, University of Alberta, Edmonton, Alberta, Canada*, pages 23–28, 2019.

[35] Bose, P., Cano, P., Saumell, M., and Silveira, R. I. Hamiltonicity for convex shape delaunay and gabriel graphs. In Friggstad, Z., Sack, J., and Salavatipour, M. R., editors, *Algorithms and Data Structures - 16th International Symposium, WADS 2019, Edmonton, AB, Canada, August 5-7, 2019, Proceedings*, volume 11646 of *Lecture Notes in Computer Science*, pages 196–210. Springer, 2019.

[36] Bose, P., Cano, P., and Silveira, R. Affine invariant triangulations. In *CCCG*, 2019.

[37] Bose, P., Cano, P., and Silveira, R. I. Ane invariant triangulations. In Friggstad, Z., and Carufel, J. D., editors, *Proceedings of the 31st Canadian Conference on Computational Geometry, CCCG 2019, August 8-10, 2019, University of Alberta, Edmonton, Alberta, Canada*, pages 250–256, 2019.

[38] Bose, P., Carmi, P., Keil, J. M., Maheshwari, A., Mehrabi, S., Mondal, D., and Smid, M. H. M. Computing maximum independent set on outerstring graphs and their relatives. In Friggstad, Z., Sack, J., and Salavatipour, M. R., editors, *Algorithms and Data Structures - 16th International Symposium, WADS 2019, Edmonton, AB, Canada, August 5-7, 2019, Proceedings*, volume 11646 of *Lecture Notes in Computer Science*, pages 211–224. Springer, 2019.

[39] Bose, P., Carufel, J. D., Hill, D., and Smid, M. H. M. On the spanning and routing ratio of theta-four. In Chan, T. M., editor, *Proceedings of the Thirtieth Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2019, San Diego, California, USA, January 6-9, 2019*, pages 2361–2370. SIAM, 2019.

[40] Bose, P., and Shermer, T. C. Attraction-convexity and normal visibility. In Friggstad, Z., and Carufel, J. D., editors, *Proceedings of the 31st Canadian Conference on Computational Geometry, CCCG 2019, August 8-10, 2019, University of Alberta, Edmonton, Alberta, Canada*, pages 110–116, 2019.

[41] Arseneva, E., Bose, P., Cano, P., D'Angelo, A., Dujmovic, V., Frati, F., Langerman, S., and Tappini, A. Pole dancing: 3d morphs for tree drawings. In Biedl, T., and Kerren, A., editors, *Graph Drawing and Network Visualization - 26th International Symposium, GD 2018, Barcelona, Spain, September 26-28, 2018, Proceedings*, volume 11282 of *Lecture Notes in Computer Science*, pages 371–384. Springer, 2018.

[42] Biniaz, A., Bose, P., Carmi, P., Maheshwari, A., Munro, J. I., and Smid, M. H. M. Faster algorithms for some optimization problems on collinear points. In Speckmann, B., and Tóth, C. D., editors, *34th International Symposium on Computational Geometry, SoCG 2018, June 11-14, 2018, Budapest, Hungary*, volume 99 of *LIPIcs*, pages 8:1–8:14. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2018.

[43] Biniaz, A., Bose, P., Ooms, A., and Verdonschot, S. Improved bounds for guarding plane graphs with edges. In Eppstein, D., editor, *16th Scandinavian Symposium and Workshops on Algorithm Theory, SWAT 2018, June 18-20, 2018, Malmö, Sweden*, volume 101 of *LIPIcs*, pages 14:1–14:12. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2018.

[44] Bonichon, N., Bose, P., Carufel, J. D., Despré, V., Hill, D., and Smid, M. H. M. Improved routing on the delaunay triangulation. In Azar, Y., Bast, H., and Herman, G., editors, *26th Annual European Symposium on Algorithms, ESA 2018, August 20-22, 2018, Helsinki, Finland*, volume 112 of *LIPIcs*, pages 22:1–22:13. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2018.

[45] Bose, P., Carmi, P., Dujmovic, V., Mehrabi, S., Montecchiani, F., Morin, P., and da Silveira, L. F. S. X. Geodesic obstacle representation of graphs. In Chatzigiannakis, I., Kaklamanis, C., Marx, D., and Sannella, D., editors, *45th International Colloquium on Automata, Languages, and Programming, ICALP 2018, July 9-13, 2018, Prague, Czech Republic*, volume 107 of *LIPIcs*, pages 23:1–23:13. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2018.

[46] Bose, P., Carmi, P., Keil, J. M., Mehrabi, S., and Mondal, D. Boundary labeling for rectangular diagrams. In Eppstein, D., editor, *16th Scandinavian Symposium and Workshops on Algorithm Theory, SWAT 2018, June 18-20, 2018, Malmö, Sweden*, volume 101 of *LIPIcs*, pages 12:1–12:14. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2018.

[47] Bose, P., and Shermer, T. C. Gathering by repulsion. In Eppstein, D., editor, *16th Scandinavian Symposium and Workshops on Algorithm Theory, SWAT 2018, June 18-20, 2018, Malmö, Sweden*, volume 101 of *LIPIcs*, pages 13:1–13:12. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2018.

[48] Bahoo, Y., Banyassady, B., Bose, P., Durocher, S., and Mulzer, W. Time-space trade-off for finding the k-visibility region of a point in a polygon. In Poon, S., Rahman, M. S., and Yen, H., editors, *WALCOM: Algorithms and Computation, 11th International Conference and Workshops, WALCOM 2017, Hsinchu, Taiwan, March 29-31, 2017, Proceedings*, volume 10167 of *Lecture Notes in Computer Science*, pages 308–319. Springer, 2017.

[49] Biniaz, A., Bose, P., Crosbie, K., Carufel, J. D., Eppstein, D., Maheshwari, A., and Smid, M. H. M. Maximum plane trees in multipartite geometric graphs. In Ellen, F., Kolokolova, A., and Sack, J., editors, *Algorithms and Data Structures - 15th International Symposium, WADS 2017, St. John's, NL, Canada, July 31 - August 2, 2017, Proceedings*, volume 10389 of *Lecture Notes in Computer Science*, pages 193–204. Springer, 2017.

[50] Bose, P., Carufel, J. D., Dujmovic, V., and Paradis, F. Local routing in spanners based on wspds. In Ellen, F., Kolokolova, A., and Sack, J., editors, *Algorithms and Data Structures - 15th International Symposium, WADS 2017, St. John's, NL, Canada, July 31 - August 2, 2017, Proceedings*, volume 10389 of *Lecture Notes in Computer Science*, pages 205–216. Springer, 2017.

[51] Bose, P., Carufel, J.-L. D., and van Renssen, A. Constrained generalized delaunay graphs are plane spanners. In *Proc. Comp. Int. Inf. Sys. 2016*, pages 281–293. Springer, 2017.

[52] Bose, P., Halperin, D., and Shamai, S. On the separation of a polyhedron from its single-part mold. In *13th IEEE Conference on Automation Science and Engineering, CASE 2017, Xi'an, China, August 20-23, 2017*, pages 61–66. IEEE, 2017.

[53] Bose, P., Korman, M., van Renssen, A., and Verdonschot, S. Constrained routing between non-visible vertices. In Cao, Y., and Chen, J., editors, *Computing and Combinatorics - 23rd International Conference, COCOON 2017, Hong Kong, China, August 3-5, 2017, Proceedings*, volume 10392 of *Lecture Notes in Computer Science*, pages 62–74. Springer, 2017.

[54] Bose, P., Korman, M., van Renssen, A., and Verdonschot, S. Routing on the visibility graph. In Okamoto, Y., and Tokuyama, T., editors, *28th International Symposium on Algorithms and Computation, ISAAC 2017, December 9-12, 2017, Phuket, Thailand*, volume 92 of *LIPIcs*, pages 18:1–18:12. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2017.

[55] Bose, P., Kostitsyna, I., and Langerman, S. Self-approaching paths in simple polygons. In Aronov, B., and Katz, M. J., editors, *33rd International Symposium on Computational Geometry, SoCG 2017, July 4-7, 2017, Brisbane, Australia*, volume 77 of *LIPIcs*, pages 21:1–21:15. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2017.

[56] Bose, P., Pennarun, C., and Verdonschot, S. Power domination on triangular grids. In Gudmundsson, J., and Smid, M. H. M., editors, *Proceedings of the 29th Canadian Conference on Computational Geometry, CCCG 2017, July 26-28, 2017, Carleton University, Ottawa, Ontario, Canada*, pages 2–6, 2017.

[57] Amani, M., Biniaz, A., Bose, P., Carufel, J. D., Maheshwari, A., and Smid, M. H. M. A plane 1.88-spanner for points in convex position. In Pagh, R., editor, *15th Scandinavian Symposium and Workshops on Algorithm Theory, SWAT 2016, June 22-24, 2016, Reykjavik, Iceland*, volume 53 of *LIPIcs*, pages 25:1–25:14. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2016.

[58] Biniaz, A., Bose, P., Carufel, J. D., Gavoille, C., Maheshwari, A., and Smid, M. H. M. Towards plane spanners of degree 3. In Hong, S., editor, *27th International Symposium on Algorithms and Computation, ISAAC 2016, December 12-14, 2016, Sydney, Australia*, volume 64 of *LIPIcs*, pages 19:1–19:14. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2016.

[59] Biniaz, A., Bose, P., Maheshwari, A., and Smid, M. H. M. Plane bichromatic trees of low degree. In Mäkinen, V., Puglisi, S. J., and Salmela, L., editors, *Combinatorial Algorithms - 27th International Workshop, IWOCA 2016, Helsinki, Finland, August 17-19, 2016, Proceedings*, volume 9843 of *Lecture Notes in Computer Science*, pages 68–80. Springer, 2016.

[60] Biniaz, A., Bose, P., van Duijn, I., Maheshwari, A., and Smid, M. H. M. A faster algorithm for the minimum red-blue-purple spanning graph problem for points on a circle. In Shermer, T. C., editor, *Proceedings of the 28th Canadian Conference on Computational Geometry, CCCG 2016, August 3-5, 2016, Simon Fraser University, Vancouver, British Columbia, Canada*, pages 140–146. Simon Fraser University, Vancouver, British Columbia, Canada, 2016.

[61] Bonichon, N., Bose, P., Carmi, P., Kostitsyna, I., Lubiw, A., and Verdonschot, S. Gabriel triangulations and angle-monotone graphs: Local routing and recognition. In Hu, Y., and Nöllenburg, M., editors, *Graph Drawing and Network Visualization - 24th International Symposium, GD 2016, Athens, Greece, September 19-21, 2016, Revised Selected Papers*, volume 9801 of *Lecture Notes in Computer Science*, pages 519–531. Springer, 2016.

[62] Bose, P., and Carufel, J. D. A general framework for searching on a line. In Kaykobad, M., and Petreschi, R., editors, *WALCOM: Algorithms and Computation - 10th International Workshop, WALCOM 2016, Kathmandu, Nepal, March 29-31, 2016, Proceedings*, volume 9627 of *Lecture Notes in Computer Science*, pages 143–153. Springer, 2016.

[63] Bose, P., Carufel, J. D., Shaikhet, A., and Smid, M. H. M. Essential constraints of edge-constrained proximity graphs. In Mäkinen, V., Puglisi, S. J., and Salmela, L., editors, *Combinatorial Algorithms - 27th International Workshop, IWOCA 2016, Helsinki, Finland, August 17-19, 2016, Proceedings*, volume 9843 of *Lecture Notes in Computer Science*, pages 55–67. Springer, 2016.

[64] Bose, P., Dujmovic, V., Morin, P., and Rioux-Maldague, L. New bounds for facial nonrepetitive colouring. In Shermer, T. C., editor, *Proceedings of the 28th Canadian Conference on Computational Geometry, CCCG 2016, August 3-5, 2016, Simon Fraser University, Vancouver, British Columbia, Canada*, pages 295–302. Simon Fraser University, Vancouver, British Columbia, Canada, 2016.

[65] Bose, P., Hill, D., and Smid, M. H. M. Improved spanning ratio for low degree plane spanners. In Kranakis, E., Navarro, G., and Chávez, E., editors, *LATIN 2016: Theoretical Informatics - 12th Latin American Symposium, Ensenada, Mexico, April 11-15, 2016, Proceedings*, volume 9644 of *Lecture Notes in Computer Science*, pages 249–262. Springer, 2016.

[66] Bose, P., Gasieniec, L. A., Römer, K., and Wattenhofer, R., editors. *Algorithms for Sensor Systems - 11th International Symposium on Algorithms and Experiments for Wireless Sensor Networks, ALGOSENSORS 2015, Patras, Greece, September 17-18, 2015, Revised Selected Papers*, volume 9536 of *Lecture Notes in Computer Science*. Springer, 2015.

[67] Ahn, H., Barba, L., Bose, P., Carufel, J. D., Korman, M., and Oh, E. A linear-time algorithm for the geodesic center of a simple polygon. In Arge, L., and Pach, J., editors, *31st International Symposium on Computational Geometry, SoCG 2015, June 22-25, 2015, Eindhoven, The Netherlands*, volume 34 of *LIPIcs*, pages 209–223. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2015.

[68] Biniaz, A., Bose, P., Maheshwari, A., and Smid, M. H. M. Plane geodesic spanning trees, hamiltonian cycles, and perfect matchings in a simple polygon. In Hajiaghayi, M. T., and Mousavi, M. R., editors, *Topics in Theoretical Computer Science - The First IFIP WG 1.8 International Conference, TTCS 2015, Tehran, Iran, August 26-28, 2015, Revised Selected Papers*, volume 9541 of *Lecture Notes in Computer Science*, pages 56–71. Springer, 2015.

[69] Bonichon, N., Bose, P., Carufel, J. D., Perkovic, L., and van Renssen, A. Upper and lower bounds for online routing on delaunay triangulations. In Bansal, N., and Finocchi, I., editors, *Algorithms - ESA 2015 - 23rd Annual European Symposium, Patras, Greece, September 14-16, 2015, Proceedings*, volume 9294 of *Lecture Notes in Computer Science*, pages 203–214. Springer, 2015.

[70] Bose, P., Carufel, J. D., and van Renssen, A. Constrained empty-rectangle delaunay graphs. In *Proceedings of the 27th Canadian Conference on Computational Geometry, CCCG 2015, Kingston, Ontario, Canada, August 10-12, 2015*. Queen's University, Ontario, Canada, 2015.

[71] Bose, P., Durocher, S., Mondal, D., Peabody, M., Skala, M., and Wahid, M. A. Local routing in convex subdivisions. In Italiano, G. F., Margaria-Steffen, T., Pokorný, J., Quisquater, J., and Wattenhofer, R., editors, *SOFSEM 2015: Theory and Practice of Computer Science - 41st International Conference on Current Trends in Theory and Practice of Computer Science, Pec pod Sněžkou, Czech Republic, January 24-29, 2015. Proceedings*, volume 8939 of *Lecture Notes in Computer Science*, pages 140–151. Springer, 2015.

[72] Bose, P., Fagerberg, R., van Renssen, A., and Verdonschot, S. Competitive local routing with constraints. In Elbassioni, K. M., and Makino, K., editors, *Algorithms and Computation - 26th International Symposium, ISAAC 2015, Nagoya, Japan, December 9-11, 2015, Proceedings*, volume 9472 of *Lecture Notes in Computer Science*, pages 23–34. Springer, 2015.

[73] Bose, P. One of ferran hurtado's favorite topics - flips. In *Proceedings of the 27th Canadian Conference on Computational Geometry, CCCG 2015, Kingston, Ontario, Canada, August 10-12, 2015*. Queen's University, Ontario, Canada, 2015.

[74] Bose, P., and Verdonschot, S. Flips in edge-labelled pseudo-triangulations. In *Proceedings of the 27th Canadian Conference on Computational Geometry, CCCG 2015, Kingston, Ontario, Canada, August 10-12, 2015*. Queen's University, Ontario, Canada, 2015.

[75] Viglietta, G., Bose, P., Carufel, J. D., Dobbins, M. G., and Kim, H. The shadows of a cycle cannot all be paths. In *Proceedings of the 27th Canadian Conference on Computational Geometry, CCCG 2015, Kingston, Ontario, Canada, August 10-12, 2015*. Queen's University, Ontario, Canada, 2015.

[76] Barba, L., Bose, P., Carufel, J. D., Damian, M., Fagerberg, R., van Renssen, A., Taslakian, P., and Verdonschot, S. Continuous yao graphs. In *Proceedings of the 26th Canadian Conference on Computational Geometry, CCCG 2014, Halifax, Nova Scotia, Canada, 2014*. Carleton University, Ottawa, Canada, 2014.

[77] Barba, L., Bose, P., Damian, M., Fagerberg, R., Keng, W. L., O'Rourke, J., van Renssen, A., Taslakian, P., Verdonschot, S., and Xia, G. New and improved spanning ratios for yao graphs. In Cheng, S., and Devillers, O., editors, *30th Annual Symposium on Computational Geometry, SoCG'14, Kyoto, Japan, June 08 - 11, 2014*, page 30. ACM, 2014.

[78] Barba, L., Bose, P., and Langerman, S. Optimal algorithms for constrained 1-center problems. In Pardo, A., and Viola, A., editors, *LATIN 2014: Theoretical Informatics - 11th Latin American Symposium, Montevideo, Uruguay, March 31 - April 4, 2014. Proceedings*, volume 8392 of *Lecture Notes in Computer Science*, pages 84–95. Springer, 2014.

[79] Bolkart, T., Bose, P., Shu, C., and Wuhrer, S. A general framework to generate sizing systems from 3d motion data applied to face mask design. In *2nd International Conference on 3D Vision, 3DV 2014, Tokyo, Japan, December 8-11, 2014, Volume 1*, pages 425–431. IEEE Computer Society, 2014.

[80] Bose, P., Carufel, J. D., Durocher, S., and Taslakian, P. Competitive online routing on delaunay triangulations. In Ravi, R., and Gørtz, I. L., editors, *Algorithm Theory - SWAT 2014 - 14th Scandinavian Symposium and Workshops, Copenhagen, Denmark, July 2-4, 2014. Proceedings*, volume 8503 of *Lecture Notes in Computer Science*, pages 98–109. Springer, 2014.

[81] Bose, P., Douïeb, K., Iacono, J., and Langerman, S. The power and limitations of static binary search trees with lazy finger. In Ahn, H., and Shin, C., editors, *Algorithms and Computation - 25th International Symposium, ISAAC 2014, Jeonju, Korea, December 15-17, 2014, Proceedings*, volume 8889 of *Lecture Notes in Computer Science*, pages 181–192. Springer, 2014.

[82] Bose, P., Fagerberg, R., Howat, J., and Morin, P. Biased predecessor search. In Pardo, A., and Viola, A., editors, *LATIN 2014: Theoretical Informatics - 11th Latin American Symposium, Montevideo, Uruguay, March 31 - April 4, 2014. Proceedings*, volume 8392 of *Lecture Notes in Computer Science*, pages 755–764. Springer, 2014.

[83] Bose, P., Howat, J., and Morin, P. Searching by panning and zooming. In *Proceedings of the 26th Canadian Conference on Computational Geometry, CCCG 2014, Halifax, Nova Scotia, Canada, 2014*. Carleton University, Ottawa, Canada, 2014.

[84] Bose, P., Morin, P., and van Renssen, A. The price of order. In Ahn, H., and Shin, C., editors, *Algorithms and Computation - 25th International Symposium, ISAAC 2014, Jeonju, Korea, December 15-17, 2014, Proceedings*, volume 8889 of *Lecture Notes in Computer Science*, pages 313–325. Springer, 2014.

[85] Bose, P., Pratt, S., and Smid, M. H. M. The convex hull of points on a sphere is a spanner. In *Proceedings of the 26th Canadian Conference on Computational Geometry, CCCG 2014, Halifax, Nova Scotia, Canada, 2014*. Carleton University, Ottawa, Canada, 2014.

[86] Bose, P., and van Renssen, A. Upper bounds on the spanning ratio of constrained theta-graphs. In Pardo, A., and Viola, A., editors, *LATIN 2014: Theoretical Informatics - 11th Latin American Symposium, Montevideo, Uruguay, March 31 - April 4, 2014. Proceedings*, volume 8392 of *Lecture Notes in Computer Science*, pages 108–119. Springer, 2014.

[87] Aichholzer, O., Bae, S. W., Barba, L., Bose, P., Korman, M., van Renssen, A., Taslakian, P., and Verdonschot, S. Theta-3 is connected. In *Proceedings of the 25th Canadian Conference on Computational Geometry, CCCG 2013, Waterloo, Ontario, Canada, August 8-10, 2013*. Carleton University, Ottawa, Canada, 2013.

[88] Barba, L., Beingessner, A., Bose, P., and Smid, M. H. M. Computing covers of plane forests. In *Proceedings of the 25th Canadian Conference on Computational Geometry, CCCG 2013, Waterloo, Ontario, Canada, August 8-10, 2013*. Carleton University, Ottawa, Canada, 2013.

[89] Barba, L., Bose, P., Carufel, J. D., van Renssen, A., and Verdonschot, S. On the stretch factor of the theta-4 graph. In Dehne, F., Solis-Oba, R., and Sack, J., editors, *Algorithms and Data Structures - 13th International Symposium, WADS 2013, London, ON, Canada, August 12-14, 2013. Proceedings*, volume 8037 of *Lecture Notes in Computer Science*, pages 109–120. Springer, 2013.

[90] Bose, P., Carufel, J. D., and Durocher, S. Revisiting the problem of searching on a line. In Bodlaender, H. L., and Italiano, G. F., editors, *Algorithms - ESA 2013 - 21st Annual European Symposium, Sophia Antipolis, France, September 2-4, 2013. Proceedings*, volume 8125 of *Lecture Notes in Computer Science*, pages 205–216. Springer, 2013.

[91] Bose, P., Carufel, J. D., Grimm, C., Maheshwari, A., and Smid, M. H. M. Optimal data structures for farthest-point queries in cactus networks. In *Proceedings of the 25th Canadian Conference on Computational Geometry, CCCG 2013, Waterloo, Ontario, Canada, August 8-10, 2013*. Carleton University, Ottawa, Canada, 2013.

[92] Bose, P., Dujmovic, V., Morin, P., and Smid, M. H. M. Robust geometric spanners. In da Fonseca, G. D., Lewiner, T., Peñaranda, L. M., Chan, T. M., and Klein, R., editors, *Symposium on Computational Geometry 2013, SoCG '13, Rio de Janeiro, Brazil, June 17-20, 2013*, pages 449–458. ACM, 2013.

[93] Bose, P., Howat, J., and Morin, P. A history of distribution-sensitive data structures. In Brodnik, A., López-Ortiz, A., Raman, V., and Viola, A., editors, *Space-Efficient Data Structures, Streams, and Algorithms - Papers in Honor of J. Ian Munro on the Occasion of His 66th Birthday*, volume 8066 of *Lecture Notes in Computer Science*, pages 133–149. Springer, 2013.

[94] Bose, P., Morin, P., van Renssen, A., and Verdonschot, S. The ϑ 5-graph is a spanner. In Brandstädt, A., Jansen, K., and Reischuk, R., editors, *Graph-Theoretic Concepts in Computer Science - 39th International Workshop, WG 2013, Lübeck, Germany, June 19-21, 2013, Revised Papers*, volume 8165 of *Lecture Notes in Computer Science*, pages 100–114. Springer, 2013.

[95] Bose, P., van Renssen, A., and Verdonschot, S. On the spanning ratio of theta-graphs. In Dehne, F., Solis-Oba, R., and Sack, J., editors, *Algorithms and Data Structures - 13th International Symposium, WADS 2013, London, ON, Canada, August 12-14, 2013. Proceedings*, volume 8037 of *Lecture Notes in Computer Science*, pages 182–194. Springer, 2013.

[96] Lai, P., Sampson, C., and Bose, P. Visual enhancement of 3d images of rock faces for rock mass characterization. In *47th US Rock Mechanics/Geomechanics Symposium*. American Rock Mechanics Association, 2013.

[97] Bose, P., Carufel, J. D., Grimm, C., Maheshwari, A., and Smid, M. H. M. On farthest-point information in networks. In *Proceedings of the 24th Canadian Conference on Computational Geometry, CCCG 2012, Charlottetown, Prince Edward Island, Canada, August 8-10, 2012*, pages 199–204, 2012.

[98] Bose, P., Carufel, J. D., Morin, P., van Renssen, A., and Verdonschot, S. Optimal bounds on theta-graphs: More is not always better. In *Proceedings of the 24th Canadian Conference on Computational Geometry, CCCG 2012, Charlottetown, Prince Edward Island, Canada, August 8-10, 2012*, pages 291–296, 2012.

[99] Bose, P., Collette, S., Fagerberg, R., and Langerman, S. De-amortizing binary search trees. In Czumaj, A., Mehlhorn, K., Pitts, A. M., and Wattenhofer, R., editors, *Automata, Languages, and Programming - 39th International Colloquium, ICALP 2012, Warwick, UK, July 9-13, 2012, Proceedings, Part I*, volume 7391 of *Lecture Notes in Computer Science*, pages 121–132. Springer, 2012.

[100] Bose, P., Dujmovic, V., Hoda, N., and Morin, P. Visibility monotonic polygon deflation. In *Proceedings of the 24th Canadian Conference on Computational Geometry, CCCG 2012, Charlottetown, Prince Edward Island, Canada, August 8-10, 2012*, pages 11–16, 2012.

[101] Bose, P., Fagerberg, R., van Renssen, A., and Verdonschot, S. Competitive routing in the half-ϑ_6-graph. In Rabani, Y., editor, *Proceedings of the Twenty-Third Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2012, Kyoto, Japan, January 17-19, 2012*, pages 1319–1328. SIAM, 2012.

[102] Bose, P., Fagerberg, R., van Renssen, A., and Verdonschot, S. Competitive routing on a bounded-degree plane spanner. In *Proceedings of the 24th Canadian Conference on Computational Geometry, CCCG 2012, Charlottetown, Prince Edward Island, Canada, August 8-10, 2012*, pages 285–290, 2012.

[103] Bose, P., Fagerberg, R., van Renssen, A., and Verdonschot, S. On plane constrained bounded-degree spanners. In Fernández-Baca, D., editor, *LATIN 2012: Theoretical Informatics - 10th Latin American Symposium, Arequipa, Peru, April 16-20, 2012. Proceedings*, volume 7256 of *Lecture Notes in Computer Science*, pages 85–96. Springer, 2012.

[104] Bose, P. Flips. In Didimo, W., and Patrignani, M., editors, *Graph Drawing - 20th International Symposium, GD 2012, Redmond, WA, USA, September 19-21, 2012, Revised Selected Papers*, volume 7704 of *Lecture Notes in Computer Science*, page 1. Springer, 2012.

[105] Bose, P. On spanning properties of various delaunay graphs. In *Ninth International Symposium on Voronoi Diagrams in Science and Engineering, ISVD 2012, New Brunswick, NJ, USA, June 27-29, 2012*, page 1. IEEE Computer Society, 2012.

[106] Bose, P., Carmi, P., Damian, M., Flatland, R. Y., Katz, M. J., and Maheshwari, A. Switching to directional antennas with constant increase in radius and hop distance. In Dehne, F., Iacono, J., and Sack, J., editors, *Algorithms and Data Structures - 12th International Symposium, WADS 2011, New York, NY, USA, August 15-17, 2011. Proceedings*, volume 6844 of *Lecture Notes in Computer Science*, pages 134–146. Springer, 2011.

[107] Bose, P., and Carufel, J. D. Isoperimetric triangular enclosure with a fixed angle. In *Proceedings of the 23rd Annual Canadian Conference on Computational Geometry, Toronto, Ontario, Canada, August 10-12, 2011*, 2011.

[108] Bose, P., Jansens, D., van Renssen, A., Saumell, M., and Verdonschot, S. Making triangulations 4-connected using flips. In *Proceedings of the 23rd Annual Canadian Conference on Computational Geometry, Toronto, Ontario, Canada, August 10-12, 2011*, 2011.

[109] Bose, P., and Verdonschot, S. A history of flips in combinatorial triangulations. In Márquez, A., Ramos, P., and Urrutia, J., editors, *Computational Geometry - XIV Spanish Meeting on Computational Geometry, EGC 2011, Dedicated to Ferran Hurtado on the Occasion of His 60th Birthday, Alcalá de Henares, Spain, June 27-30, 2011, Revised Selected Papers*, volume 7579 of *Lecture Notes in Computer Science*, pages 29–44. Springer, 2011.

[110] Aloupis, G., Bose, P., Collette, S., Demaine, E. D., Demaine, M. L., Douïeb, K., Dujmovic, V., Iacono, J., Langerman, S., and Morin, P. Common unfoldings of polyominoes and polycubes. In Akiyama, J., Jiang, B., Kano, M., and Tan, X., editors, *Computational Geometry, Graphs and Applications - 9th International Conference, CGGA 2010, Dalian, China, November 3-6, 2010, Revised Selected Papers*, volume 7033 of *Lecture Notes in Computer Science*, pages 44–54. Springer, 2010.

[111] Ballinger, B., Benbernou, N. M., Bose, P., Damian, M., Demaine, E. D., Dujmovic, V., Flatland, R. Y., Hurtado, F., Iacono, J., Lubiw, A., Morin, P., Adinolfi, V. S., Souvaine, D. L., and Uehara, R. Coverage with k-transmitters in the presence of obstacles. In Wu, W., and Daescu, O., editors, *Combinatorial Optimization and Applications - 4th International Conference, COCOA 2010, Kailua-Kona, HI, USA, December 18-20, 2010, Proceedings, Part II*, volume 6509 of *Lecture Notes in Computer Science*, pages 1–15. Springer, 2010.

[112] Bose, P., Carmi, P., Jansens, D., Maheshwari, A., Morin, P., and Smid, M. H. M. Improved methods for generating quasi-gray codes. In Kaplan, H., editor, *Algorithm Theory - SWAT 2010, 12th Scandinavian Symposium and Workshops on Algorithm Theory, Bergen, Norway, June 21-23, 2010. Proceedings*, volume 6139 of *Lecture Notes in Computer Science*, pages 224–235. Springer, 2010.

[113] Bose, P., Carmi, P., Smid, M. H. M., and Xu, D. Communication-efficient construction of the plane localized delaunay graph. In López-Ortiz, A., editor, *LATIN 2010: Theoretical Informatics, 9th Latin American Symposium, Oaxaca, Mexico, April 19-23, 2010. Proceedings*, volume 6034 of *Lecture Notes in Computer Science*, pages 282–293. Springer, 2010.

[114] Bose, P., and Carufel, J. D. Minimum enclosing area triangle with a fixed angle. In *Proceedings of the 22nd Annual Canadian Conference on Computational Geometry, Winnipeg, Manitoba, Canada, August 9-11, 2010*, pages 171–174, 2010.

[115] Bose, P., Cheong, O., and Dujmovic, V. On the perimeter of fat objects. In *Proceedings of the 22nd Annual Canadian Conference on Computational Geometry, Winnipeg, Manitoba, Canada, August 9-11, 2010*, pages 163–166, 2010.

[116] Bose, P., Collette, S., Hurtado, F., Korman, M., Langerman, S., Sacristán, V., and Saumell, M. Some properties of higher order delaunay and gabriel graphs. In *Proceedings of the 22nd Annual Canadian Conference on Computational Geometry, Winnipeg, Manitoba, Canada, August 9-11, 2010*, pages 13–16, 2010.

[117] Bose, P., Damian, M., Douïeb, K., O'Rourke, J., Seamone, B., Smid, M. H. M., and Wuhrer, S. $pi/2$-angle yao graphs are spanners. In Cheong, O., Chwa, K., and Park, K., editors, *Algorithms and Computation - 21st International Symposium, ISAAC 2010, Jeju Island, Korea, December 15-17, 2010, Proceedings, Part II*, volume 6507 of *Lecture Notes in Computer Science*, pages 446–457. Springer, 2010.

[118] Bose, P., Douïeb, K., Dujmovic, V., and Fagerberg, R. An $O(\log \log n)$-competitive binary search tree with optimal worst-case access times. In Kaplan, H., editor, *Algorithm Theory - SWAT 2010, 12th Scandinavian Symposium and Workshops on Algorithm Theory, Bergen, Norway, June 21-23, 2010. Proceedings*, volume 6139 of *Lecture Notes in Computer Science*, pages 38–49. Springer, 2010.

[119] Bose, P., Douïeb, K., Dujmovic, V., and Howat, J. Layered working-set trees. In López-Ortiz, A., editor, *LATIN 2010: Theoretical Informatics, 9th Latin American Symposium, Oaxaca, Mexico, April 19-23, 2010. Proceedings*, volume 6034 of *Lecture Notes in Computer Science*, pages 686–696. Springer, 2010.

[120] Bose, P., Douïeb, K., Dujmovic, V., Howat, J., and Morin, P. Fast local searches and updates in bounded universes. In *Proceedings of the 22nd Annual Canadian Conference on Computational Geometry, Winnipeg, Manitoba, Canada, August 9-11, 2010*, pages 261–264, 2010.

[121] Bose, P., Douïeb, K., and Morin, P. Skip lift: A probabilistic alternative to red-black trees. In Iliopoulos, C. S., and Smyth, W. F., editors, *Combinatorial Algorithms - 21st International Workshop, IWOCA 2010, London, UK, July 26-28, 2010, Revised Selected Papers*, volume 6460 of *Lecture Notes in Computer Science*, pages 226–237. Springer, 2010.

[122] Bose, P., and Douïeb, K. Should static search trees ever be unbalanced? In Cheong, O., Chwa, K., and Park, K., editors, *Algorithms and Computation - 21st International Symposium, ISAAC 2010, Jeju Island, Korea, December 15-17, 2010, Proceedings, Part I*, volume 6506 of *Lecture Notes in Computer Science*, pages 109–120. Springer, 2010.

[123] Carmichael, G., Laganière, R., and Bose, P. Global context descriptors for SURF and MSER feature descriptors. In *Canadian Conference on Computer and Robot Vision, CRV 2010, Ottawa, Ontario, Canada, May 31 - June 2, 2010*, pages 309–316. IEEE Computer Society, 2010.

[124] Abel, Z., Ballinger, B., Bose, P., Collette, S., Dujmovic, V., Hurtado, F., Kominers, S. D., Langerman, S., Pór, A., and Wood, D. R. Every large point set contains many collinear points or an empty pentagon. In *Proceedings of the 21st Annual Canadian Conference on Computational Geometry, Vancouver, British Columbia, Canada, August 17-19, 2009*, pages 99–102, 2009.

[125] Bose, P., Cardinal, J., Collette, S., Demaine, E. D., Palop, B., Taslakian, P., and Zeh, N. Relaxed gabriel graphs. In *Proceedings of the 21st Annual Canadian Conference on Computational Geometry, Vancouver, British Columbia, Canada, August 17-19, 2009*, pages 169–172, 2009.

[126] Bose, P., Carmi, P., and Durocher, S. Bounding the locality of distributed routing algorithms. In Tirthapura, S., and Alvisi, L., editors, *Proceedings of the 28th Annual ACM Symposium on Principles of Distributed Computing, PODC 2009, Calgary, Alberta, Canada, August 10-12, 2009*, pages 250–259. ACM, 2009.

[127] Bose, P., Chen, E. Y., He, M., Maheshwari, A., and Morin, P. Succinct geometric indexes supporting point location queries. In Mathieu, C., editor, *Proceedings of the Twentieth Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2009, New York, NY, USA, January 4-6, 2009*, pages 635–644. SIAM, 2009.

[128] Bose, P., Devroye, L., Löffler, M., Snoeyink, J., and Verma, V. The spanning ratio of the delaunay triangulation is greater than pi/2. In *Proceedings of the 21st Annual Canadian Conference on Computational Geometry, Vancouver, British Columbia, Canada, August 17-19, 2009*, pages 165–167, 2009.

[129] Bose, P., and Douïeb, K. Efficient construction of near-optimal binary and multiway search trees. In Dehne, F. K. H. A., Gavrilova, M. L., Sack, J., and Tóth, C. D., editors, *Algorithms and Data Structures, 11th International Symposium, WADS 2009, Banff, Canada, August 21-23, 2009. Proceedings*, volume 5664 of *Lecture Notes in Computer Science*, pages 230–241. Springer, 2009.

[130] Bose, P., He, M., Maheshwari, A., and Morin, P. Succinct orthogonal range search structures on a grid with applications to text indexing. In Dehne, F. K. H. A., Gavrilova, M. L., Sack, J., and Tóth, C. D., editors, *Algorithms and Data Structures, 11th International Symposium, WADS 2009, Banff, Canada, August 21-23, 2009. Proceedings*, volume 5664 of *Lecture Notes in Computer Science*, pages 98–109. Springer, 2009.

[131] Bose, P., Howat, J., and Morin, P. A distribution-sensitive dictionary with low space overhead. In Dehne, F. K. H. A., Gavrilova, M. L., Sack, J., and Tóth, C. D., editors, *Algorithms and Data Structures, 11th International Symposium, WADS 2009, Banff, Canada, August 21-23, 2009. Proceedings*, volume 5664 of *Lecture Notes in Computer Science*, pages 110–118. Springer, 2009.

[132] Brunton, A., Wuhrer, S., Shu, C., Bose, P., and Demaine, E. D. Filling holes in triangular meshes by curve unfolding. In Yong, J., Spagnuolo, M., and Wang, W., editors, *IEEE International Conference on Shape Modeling and Applications, SMI 2009, Beijing, China, 26-28 June 2009*, pages 66–72. IEEE Computer Society, 2009.

[133] Wuhrer, S., Shu, C., and Bose, P. Posture invariant correspondence of triangular meshes in shape space. In *12th IEEE International Conference on Computer Vision Workshops, ICCV Workshops 2009, Kyoto, Japan, September 27 - October 4, 2009*, pages 1574–1581. IEEE Computer Society, 2009.

[134] Aloupis, G., Bose, P., Dujmovic, V., Gray, C., Langerman, S., and Speckmann, B. Triangulating and guarding realistic polygons. In *Proceedings of the 20th Annual Canadian Conference on Computational Geometry, Montréal, Canada, August 13-15, 2008*, 2008.

[135] Bose, P., Carmi, P., Collette, S., and Smid, M. H. M. On the stretch factor of convex delaunay graphs. In Hong, S., Nagamochi, H., and Fukunaga, T., editors, *Algorithms and Computation, 19th International Symposium, ISAAC 2008, Gold Coast, Australia, December 15-17, 2008. Proceedings*, volume 5369 of *Lecture Notes in Computer Science*, pages 656–667. Springer, 2008.

[136] Bose, P., Carmi, P., Couture, M., Maheshwari, A., Morin, P., and Smid, M. H. M. Spanners of complete k -partite geometric graphs. In Laber, E. S., Bornstein, C. F., Nogueira, L. T., and Faria, L., editors, *LATIN 2008: Theoretical Informatics, 8th Latin American Symposium, Búzios, Brazil, April 7-11, 2008, Proceedings*, volume 4957 of *Lecture Notes in Computer Science*, pages 170–181. Springer, 2008.

[137] Bose, P., Carmi, P., and Couture, M. Spanners of additively weighted point sets. In Gudmundsson, J., editor, *Algorithm Theory - SWAT 2008, 11th Scandinavian Workshop on Algorithm Theory, Gothenburg, Sweden, July 2-4, 2008, Proceedings*, volume 5124 of *Lecture Notes in Computer Science*, pages 367–377. Springer, 2008.

[138] Bose, P., Carmi, P., Farshi, M., Maheshwari, A., and Smid, M. H. M. Computing the greedy spanner in near-quadratic time. In Gudmundsson, J., editor, *Algorithm Theory - SWAT 2008, 11th Scandinavian Workshop on Algorithm Theory, Gothenburg, Sweden, July 2-4, 2008, Proceedings*, volume 5124 of *Lecture Notes in Computer Science*, pages 390–401. Springer, 2008.

[139] Bose, P., Douïeb, K., and Langerman, S. Dynamic optimality for skip lists and b-trees. In Teng, S., editor, *Proceedings of the Nineteenth Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2008, San Francisco, California, USA, January 20-22, 2008*, pages 1106–1114. SIAM, 2008.

[140] Bose, P., Langerman, S., and Roy, S. Smallest enclosing circle centered on a query line segment. In *Proceedings of the 20th Annual Canadian Conference on Computational Geometry, Montréal, Canada, August 13-15, 2008*, 2008.

[141] Bose, P., O'Rourke, J., Shu, C., and Wuhrer, S. Isometric morphing of triangular meshes. In *Proceedings of the 20th Annual Canadian Conference on Computational Geometry, Montréal, Canada, August 13-15, 2008*, 2008.

[142] Bose, P., editor. *Proceedings of the 19th Annual Canadian Conference on Computational Geometry, CCCG 2007, August 20-22, 2007, Carleton University, Ottawa, Canada*. Carleton University, Ottawa, Canada, 2007.

[143] Aloupis, G., Ballinger, B., Bose, P., Damian, M., Demaine, E. D., Demaine, M. L., Flatland, R. Y., Hurtado, F., Langerman, S., O'Rourke, J., Taslakian, P., and Toussaint, G. T. Vertex pops and popturns. In Bose, P., editor, *Proceedings of the 19th Annual Canadian Conference on Computational Geometry, CCCG 2007, August 20-22, 2007, Carleton University, Ottawa, Canada*, pages 137–140. Carleton University, Ottawa, Canada, 2007.

[144] Asano, T., Bose, P., Carmi, P., Maheshwari, A., Shu, C., Smid, M. H. M., and Wuhrer, S. Linear-space algorithms for distance preserving embedding. In Bose, P., editor, *Proceedings of the 19th Annual Canadian Conference on Computational Geometry, CCCG 2007, August 20-22, 2007, Carleton University, Ottawa, Canada*, pages 185–188. Carleton University, Ottawa, Canada, 2007.

[145] Azouz, Z. B., Bose, P., Shu, C., and Wuhrer, S. Approximations of geodesic distances for incomplete triangular manifolds. In Bose, P., editor, *Proceedings of the 19th Annual Canadian Conference on Computational Geometry, CCCG 2007, August 20-22, 2007, Carleton University, Ottawa, Canada*, pages 177–180. Carleton University, Ottawa, Canada, 2007.

[146] Bereg, S., Bose, P., Dumitrescu, A., Hurtado, F., and Valtr, P. Traversing a set of points with a minimum number of turns. In Erickson, J., editor, *Proceedings of the 23rd ACM Symposium on Computational Geometry, Gyeongju, South Korea, June 6-8, 2007*, pages 46–55. ACM, 2007.

[147] Bose, P., Carmi, P., Couture, M., Maheshwari, A., Smid, M. H. M., and Zeh, N. Geometric spanners with small chromatic number. In Kaklamanis, C., and Skutella, M., editors, *Approximation and Online Algorithms, 5th International Workshop, WAOA 2007, Eilat, Israel, October 11-12, 2007. Revised Papers*, volume 4927 of *Lecture Notes in Computer Science*, pages 75–88. Springer, 2007.

[148] Bose, P., Carmi, P., Couture, M., Smid, M. H. M., and Xu, D. On a family of strong geometric spanners that admit local routing strategies. In Dehne, F. K. H. A., Sack, J., and Zeh, N., editors, *Algorithms and Data Structures, 10th International Workshop, WADS 2007, Halifax, Canada, August 15-17, 2007, Proceedings*, volume 4619 of *Lecture Notes in Computer Science*, pages 300–311. Springer, 2007.

[149] Bose, P., Dujmovic, V., Krizanc, D., Langerman, S., Morin, P., Wood, D. R., and Wuhrer, S. A characterization of the degree sequences of 2-trees. In Panario, D., and Sedgewick, R., editors, *Proceedings of the Fourth Workshop on Analytic Algorithmics and Combinatorics, ANALCO 2007, New Orleans, Louisiana, USA, January 06, 2007*, pages 232–241. SIAM, 2007.

[150] Bose, P., Lee, A., and Smid, M. H. M. On generalized diamond spanners. In Dehne, F. K. H. A., Sack, J., and Zeh, N., editors, *Algorithms and Data Structures, 10th International Workshop, WADS 2007, Halifax, Canada, August 15-17, 2007, Proceedings*, volume 4619 of *Lecture Notes in Computer Science*, pages 325–336. Springer, 2007.

[151] Bose, P., and Morrison, J. Optimal point set partitioning using rigid motion star placement. In Bose, P., editor, *Proceedings of the 19th Annual Canadian Conference on Computational Geometry, CCCG 2007, August 20-22, 2007, Carleton University, Ottawa, Canada*, pages 49–52. Carleton University, Ottawa, Canada, 2007.

[152] Couture, M., Barbeau, M., Bose, P., Carmi, P., and Kranakis, E. Location oblivious distributed unit disk graph coloring. In Prencipe, G., and Zaks, S., editors, *Structural Information and Communication Complexity, 14th International Colloquium, SIROCCO 2007, Castiglioncello, Italy, June 5-8, 2007, Proceedings*, volume 4474 of *Lecture Notes in Computer Science*, pages 222–233. Springer, 2007.

[153] Aronov, B., Bose, P., Demaine, E. D., Gudmundsson, J., Iacono, J., Langerman, S., and Smid, M. H. M. Data structures for halfplane proximity queries and incremental voronoi diagrams. In Correa, J. R., Hevia, A., and Kiwi, M. A., editors, *LATIN 2006: Theoretical Informatics, 7th Latin American Symposium, Valdivia, Chile, March 20-24, 2006, Proceedings*, volume 3887 of *Lecture Notes in Computer Science*, pages 80–92. Springer, 2006.

[154] Bose, P., Bremner, D., and Souvaine, D. L. Computing the tool path of an externally monotone polygon in linear time. In *Proceedings of the 18th Annual Canadian Conference on Computational Geometry, CCCG 2006, August 14-16, 2006, Queen's University, Ontario, Canada*, 2006.

[155] Bose, P., Czyzowicz, J., Gao, Z., Morin, P., and Wood, D. R. Simultaneous diagonal flips in plane triangulations. In *Proceedings of the Seventeenth Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2006, Miami, Florida, USA, January 22-26, 2006*, pages 212–221. ACM Press, 2006.

[156] Bose, P., and Keil, J. M. On the stretch factor of the constrained delaunay triangulation. In *3rd International Symposium on Voronoi Diagrams in Science and Engineering, ISVD 2006, Banff, Alberta, Canada, July 2-5, 2006*, pages 25–31. IEEE Computer Society, 2006.

[157] Bose, P., Morin, P., Smid, M. H. M., and Wuhrer, S. Rotationally monotone polygons. In *Proceedings of the 18th Annual Canadian Conference on Computational Geometry, CCCG 2006, August 14-16, 2006, Queen's University, Ontario, Canada*, 2006.

[158] Bose, P., and Morrison, J. Optimal polygon placement. In *Proceedings of the 18th Annual Canadian Conference on Computational Geometry, CCCG 2006, August 14-16, 2006, Queen's University, Ontario, Canada*, 2006.

[159] Bose, P., Smid, M. H. M., and Xu, D. Diamond triangulations contain spanners of bounded degree. In Asano, T., editor, *Algorithms and Computation, 17th International Symposium, ISAAC 2006, Kolkata, India, December 18-20, 2006, Proceedings*, volume 4288 of *Lecture Notes in Computer Science*, pages 173–182. Springer, 2006.

[160] Couture, M., Barbeau, M., Bose, P., and Kranakis, E. Incremental construction of k-dominating sets in wireless sensor networks. In Shvartsman, A. A., editor, *Principles of Distributed Systems, 10th International Conference, OPODIS 2006, Bordeaux, France, December 12-15, 2006, Proceedings*, volume 4305 of *Lecture Notes in Computer Science*, pages 202–214. Springer, 2006.

[161] Hahn, E., Bose, P., and Whitehead, A. D. Lazy generation of building interiors in realtime. In *Proceedings of the Canadian Conference on Electrical and Computer Engineering, CCECE 2006, May 7-10, 2006, Ottawa Congress Centre, Ottawa, Canada*, pages 2441–2444. IEEE, 2006.

[162] Hahn, E., Bose, P., and Whitehead, A. D. Persistent realtime building interior generation. In Heirich, A., and Thomas, D., editors, *Proceedings of the 2006 ACM SIGGRAPH symposium on Videogames, Sandbox '06, Boston, Massachusetts, USA, July 30-31, 2006*, pages 179–186. ACM, 2006.

[163] Whitehead, A. D., Bose, P., and Laganière, R. Feature-based cut detection with automatic threshold selection. In Over, P., Ianeva, T., Kraaij, W., and Smeaton, A. F., editors, *2006 TREC Video Retrieval Evaluation, TRECVID 2006, Gaithersburg, MD, USA, November 13-14, 2006*. National Institute of Standards and Technology (NIST), 2006.

[164] Abellanas, M., Bose, P., García-López, J., Hurtado, F., Nicolás, M., and Ramos, P. A. On properties of higher-order delaunay graphs with applications. In *(Informal) Proceedings of the 21st European Workshop on Computational Geometry, Eindhoven, The Netherlands, March 9-11, 2005*, pages 119–122. Technische Universiteit Eindhoven, 2005.

[165] Bose, P., Dujmovic, V., and Wood, D. R. Induced subgraphs of bounded degree and bounded treewidth. In Kratsch, D., editor, *Graph-Theoretic Concepts in Computer Science, 31st International Workshop, WG 2005, Metz, France, June 23-25, 2005, Revised Selected Papers*, volume 3787 of *Lecture Notes in Computer Science*, pages 175–186. Springer, 2005.

[166] Bose, P., Kranakis, E., Morin, P., and Tang, Y. Approximate range mode and range median queries. In Diekert, V., and Durand, B., editors, *STACS 2005, 22nd Annual Symposium on Theoretical Aspects of Computer Science, Stuttgart, Germany, February 24-26, 2005, Proceedings*, volume 3404 of *Lecture Notes in Computer Science*, pages 377–388. Springer, 2005.

[167] Bose, P., and Morrison, J. Translating a star over a point set. In *Proceedings of the 17th Canadian Conference on Computational Geometry, CCCG'05, University of Windsor, Ontario, Canada, August 10-12, 2005*, pages 179–182, 2005.

[168] Whitehead, A. D., Bose, P., and Audet, V. High-speed texture-preserving digital image inpainting. In Marcellin, M. W., editor, *Signal and Image Processing (SIP 2005), Proceedings of the IASTED International Conference, August 15-17, 2005, Honolulu, HI, USA*, pages 526–531. IASTED/ACTA Press, 2005.

[169] Whitehead, A. D., Laganière, R., and Bose, P. Temporal synchronization of video sequences in theory and in practice. In *7th IEEE Workshop on Applications of Computer Vision / IEEE Workshop on Motion and Video Computing (WACV/MOTION 2005), 5-7 January 2005, Breckenridge, CO, USA*, pages 132–137. IEEE Computer Society, 2005.

[170] Abellanas, M., Bose, P., Olaverri, A. G., Hurtado, F., Ramos, P. A., Rivera-Campo, E., and Tejel, J. On local transformations in plane geometric graphs embedded on small grids. In Laganà, A., Gavrilova, M. L., Kumar, V., Mun, Y., Tan, C. J. K., and Gervasi, O., editors, *Computational Science and Its Applications - ICCSA 2004, International Conference, Assisi, Italy, May 14-17, 2004, Proceedings, Part III*, volume 3045 of *Lecture Notes in Computer Science*, pages 22–31. Springer, 2004.

[171] Aloupis, G., Bose, P., and Morin, P. Reconfiguring triangulations with edge flips and point moves. In Pach, J., editor, *Graph Drawing, 12th International Symposium, GD 2004, New York, NY, USA, September 29 - October 2, 2004, Revised Selected Papers*, volume 3383 of *Lecture Notes in Computer Science*, pages 1–11. Springer, 2004.

[172] Bose, P., Demaine, E. D., Hurtado, F., Iacono, J., Langerman, S., and Morin, P. Geodesic ham-sandwich cuts. In Snoeyink, J., and Boissonnat, J., editors, *Proceedings of the 20th ACM Symposium on Computational Geometry, Brooklyn, New York, USA, June 8-11, 2004*, pages 1–9. ACM, 2004.

[173] Bose, P., Hurtado, F., Rivera-Campo, E., and Wood, D. R. Partitions of complete geometric graphs into plane trees. In Pach, J., editor, *Graph Drawing, 12th International Symposium, GD 2004, New York, NY, USA, September 29 - October 2, 2004, Revised Selected Papers*, volume 3383 of *Lecture Notes in Computer Science*, pages 71–81. Springer, 2004.

[174] Bose, P., and Langerman, S. Weighted ham-sandwich cuts. In Akiyama, J., Kano, M., and Tan, X., editors, *Discrete and Computational Geometry, Japanese Conference, JCDCG 2004, Tokyo, Japan, October 8-11, 2004, Revised Selected Papers*, volume 3742 of *Lecture Notes in Computer Science*, pages 48–53. Springer, 2004.

[175] Bose, P., Seara, C., and Sethia, S. On computing enclosing isosceles triangles and related problems. In *Proceedings of the 16th Canadian Conference on Computational Geometry, CCCG'04, Concordia University, Montréal, Québec, Canada, August 9-11, 2004*, pages 120–123, 2004.

[176] Bose, P., and van Kreveld, M. J. Computing nice sweeps for polyhedra and polygons. In *Proceedings of the 16th Canadian Conference on Computational Geometry, CCCG'04, Concordia University, Montréal, Québec, Canada, August 9-11, 2004*, pages 108–111, 2004.

[177] Whitehead, A. D., Bose, P., and Laganière, R. Feature based cut detection with automatic threshold selection. In *Image and Video Retrieval: Third International Conference, CIVR 2004, Dublin, Ireland, July 21-23, 2004. Proceedings*, volume 3115 of *Lecture Notes in Computer Science*, pages 410–418. Springer, 2004.

[178] Bose, P., Kranakis, E., Morin, P., and Tang, Y. Bounds for frequency estimation of packet streams. In Sibeyn, J. F., editor, *SIROCCO 10: Proceedings of the 10th Internaltional Colloquium on Structural Information Complexity, June 18-20, 2003, Umeå Sweden*, volume 17 of *Proceedings in Informatics*, pages 33–42. Carleton Scientific, 2003.

[179] Bose, P., Maheshwari, A., Narasimhan, G., Smid, M. H. M., and Zeh, N. Approximating geometric bottleneck shortest paths. In Alt, H., and Habib, M., editors, *STACS 2003, 20th Annual Symposium on Theoretical Aspects of Computer Science, Berlin, Germany, February 27 - March 1, 2003, Proceedings*, volume 2607 of *Lecture Notes in Computer Science*, pages 38–49. Springer, 2003.

[180] Bose, P., and Morin, P., editors. *Algorithms and Computation, 13th International Symposium, ISAAC 2002 Vancouver, BC, Canada, November 21-23, 2002, Proceedings*, volume 2518 of *Lecture Notes in Computer Science*. Springer, 2002.

[181] Aloupis, G., Bose, P., Demaine, E. D., Langerman, S., Meijer, H., Overmars, M. H., and Toussaint, G. T. Computing signed permutations of polygons. In *Proceedings of the 14th Canadian Conference on Computational Geometry, University of Lethbridge, Alberta, Canada, August 12-14, 2002*, pages 68–71, 2002.

[182] Bose, P., Devroye, L., Evans, W. S., and Kirkpatrick, D. G. On the spanning ratio of gabriel graphs and beta-skeletons. In Rajsbaum, S., editor, *LATIN 2002: Theoretical Informatics, 5th Latin American Symposium, Cancun, Mexico, April 3-6, 2002, Proceedings*, volume 2286 of *Lecture Notes in Computer Science*, pages 479–493. Springer, 2002.

[183] Bose, P., Devroye, L., and Morin, P. Succinct data structures for approximating convex functions with applications. In Akiyama, J., and Kano, M., editors, *Discrete and Computational Geometry, Japanese Conference, JCDCG 2002, Tokyo, Japan, December 6-9, 2002, Revised Papers*, volume 2866 of *Lecture Notes in Computer Science*, pages 97–107. Springer, 2002.

[184] Bose, P., Gudmundsson, J., and Morin, P. Ordered theta graphs. In *Proceedings of the 14th Canadian Conference on Computational Geometry, University of Lethbridge, Alberta, Canada, August 12-14, 2002*, pages 17–21, 2002.

[185] Bose, P., Gudmundsson, J., and Smid, M. H. M. Constructing plane spanners of bounded degree and low weight. In Möhring, R. H., and Raman, R., editors, *Algorithms - ESA 2002, 10th Annual European Symposium, Rome, Italy, September 17-21, 2002, Proceedings*, volume 2461 of *Lecture Notes in Computer Science*, pages 234–246. Springer, 2002.

[186] Bose, P., Krizanc, D., Langerman, S., and Morin, P. Asymmetric communication protocols via hotlink assignments. In Kaklamanis, C., and Kirousis, L. M., editors, *SIROCCO 9, Proceedings of the 9th International Colloquium on Structural Information and Communication Complexity, Andros, Greece, June 10-12, 2002*, volume 13 of *Proceedings in Informatics*, pages 33–39. Carleton Scientific, 2002.

[187] Bose, P., Smid, M. H. M., and Wood, D. R. Light edges in degree-constrained graphs. In *Proceedings of the 14th Canadian Conference on Computational Geometry, University of Lethbridge, Alberta, Canada, August 12-14, 2002*, pages 142–145, 2002.

[188] Bose, P., and Wang, Q. Facility location constrained to a polygonal domain. In Rajsbaum, S., editor, *LATIN 2002: Theoretical Informatics, 5th Latin American Symposium, Cancun, Mexico, April 3-6, 2002, Proceedings*, volume 2286 of *Lecture Notes in Computer Science*, pages 153–164. Springer, 2002.

[189] Bose, P., Maheshwari, A., Morin, P., and Morrison, J. The grid placement problem. In Dehne, F. K. H. A., Sack, J., and Tamassia, R., editors, *Algorithms and Data Structures, 7th International Workshop, WADS 2001, Providence, RI, USA, August 8-10, 2001, Proceedings*, volume 2125 of *Lecture Notes in Computer Science*, pages 180–191. Springer, 2001.

[190] Bose, P., and Morin, P. Competitive online routing in geometric graphs. In Comellas, F., Fàbrega, J., and Fraigniaud, P., editors, *SIROCCO 8, Proceedings of the 8th International Colloquium on Structural Information and Communication Complexity, Vall de Núria, Girona-Barcelona, Catalonia, Spain, 27-29 June, 2001*, volume 8 of *Proceedings in Informatics*, pages 35–44. Carleton Scientific, 2001.

[191] Bose, P., Morin, P., and Vigneron, A. Packing two disks into a polygonal environment. In Wang, J., editor, *Computing and Combinatorics, 7th Annual International Conference, COCOON 2001, Guilin, China, August 20-23, 2001, Proceedings*, volume 2108 of *Lecture Notes in Computer Science*, pages 142–149. Springer, 2001.

[192] Ahn, H., Bose, P., Czyzowicz, J., Hanusse, N., Kranakis, E., and Morin, P. Flipping your lid. In *Proceedings of the 12th Canadian Conference on Computational Geometry, Fredericton, New Brunswick, Canada, August 16-19, 2000*, 2000.

[193] Bose, P., Kranakis, E., Krizanc, D., Martin, M. V., Czyzowicz, J., Pelc, A., and Gasieniec, L. Strategies for hotlink assignments. In Lee, D. T., and Teng, S., editors, *Algorithms and Computation, 11th International Conference, ISAAC 2000, Taipei, Taiwan, December 18-20, 2000, Proceedings*, volume 1969 of *Lecture Notes in Computer Science*, pages 23–34. Springer, 2000.

[194] Bose, P., Morin, P., Brodnik, A., Carlsson, S., Demaine, E. D., Fleischer, R., Munro, J. I., and López-Ortiz, A. Online routing in convex subdivisions. In Lee, D. T., and Teng, S., editors, *Algorithms and Computation, 11th International Conference, ISAAC 2000, Taipei, Taiwan, December 18-20, 2000, Proceedings*, volume 1969 of *Lecture Notes in Computer Science*, pages 47–59. Springer, 2000.

[195] Bose, P., and Morin, P. An improved algorithm for subdivision traversal without extra storage. In Lee, D. T., and Teng, S., editors, *Algorithms and Computation, 11th International Conference, ISAAC 2000, Taipei, Taiwan, December 18-20, 2000, Proceedings*, volume 1969 of *Lecture Notes in Computer Science*, pages 444–455. Springer, 2000.

[196] Barequet, G., Bose, P., and Dickerson, M. Optimizing constrained offset and scaled polygonal annuli. In Dehne, F. K. H. A., Gupta, A., Sack, J., and Tamassia, R., editors, *Algorithms and Data Structures, 6th International Workshop, WADS '99, Vancouver, British Columbia, Canada, August 11-14, 1999, Proceedings*, volume 1663 of *Lecture Notes in Computer Science*, pages 62–73. Springer, 1999.

[197] Biedl, T. C., Bose, P., Demaine, E. D., and Lubiw, A. Efficient algorithms for petersen's matching theorem. In Tarjan, R. E., and Warnow, T. J., editors, *Proceedings of the Tenth Annual ACM-SIAM Symposium on Discrete Algorithms, 17-19 January 1999, Baltimore, Maryland, USA*, pages 130–139. ACM/SIAM, 1999.

[198] Bose, P., Chan, A., Dehne, F. K. H. A., and Latzel, M. Coarse grained parallel maximum matching in convex bipartite graphs. In *13th International Parallel Processing Symposium / 10th Symposium on Parallel and Distributed Processing (IPPS / SPDP '99), 12-16 April 1999, San Juan, Puerto Rico, Proceedings*, pages 125–129. IEEE Computer Society, 1999.

[199] Bose, P., Czyzowicz, J., Kranakis, E., Krizanc, D., and Lessard, D. Near optimal-partitioning of rectangles and prisms. In *Proceedings of the 11th Canadian Conference on Computational Geometry, UBC, Vancouver, British Columbia, Canada, August 15-18, 1999*, 1999.

[200] Bose, P., Kaklamanis, C., Kirousis, L. M., Kranakis, E., Krizanc, D., and Peleg, D. Station layouts in the presence of location constraints. In Aggarwal, A., and Rangan, C. P., editors, *Algorithms and Computation, 10th International Symposium, ISAAC '99, Chennai, India, December 16-18, 1999, Proceedings*, volume 1741 of *Lecture Notes in Computer Science*, pages 269–278. Springer, 1999.

[201] Bose, P., and Morin, P. Online routing in triangulations. In Aggarwal, A., and Rangan, C. P., editors, *Algorithms and Computation, 10th International Symposium, ISAAC '99, Chennai, India, December 16-18, 1999, Proceedings*, volume 1741 of *Lecture Notes in Computer Science*, pages 113–122. Springer, 1999.

[202] Bose, P., Morin, P., Stojmenovic, I., and Urrutia, J. Routing with guaranteed delivery in ad hoc wireless networks. In *Proceedings of the 3rd International Workshop on Discrete Algorithms and Methods for Mobile Computing and Communications (DIAL-M 1999), Seattle, Washington, USA, August 20, 1999*, pages 48–55. ACM, 1999.

[203] Bose, P., and Morin, P. Testing the quality of manufactured balls. In Dehne, F. K. H. A., Gupta, A., Sack, J., and Tamassia, R., editors, *Algorithms and Data Structures, 6th International Workshop, WADS '99, Vancouver, British Columbia, Canada, August 11-14, 1999, Proceedings*, volume 1663 of *Lecture Notes in Computer Science*, pages 145–156. Springer, 1999.

[204] Bose, P., Caron, J., and Ghoudi, K. Detection of text-line orientation. In *Proceedings of the 10th Canadian Conference on Computational Geometry, McGill University, Montréal, Québec, Canada, August 10-12, 1998*, 1998.

[205] Bose, P., Czyzowicz, J., Kranakis, E., Krizanc, D., and Maheshwari, A. Polygon cutting: Revisited. In Akiyama, J., Kano, M., and Urabe, M., editors, *Discrete and Computational Geometry, Japanese Conference, JCDCG'98, Tokyo, Japan, December 9-12, 1998, Revised Papers*, volume 1763 of *Lecture Notes in Computer Science*, pages 81–92. Springer, 1998.

[206] Bose, P., Czyzowicz, J., Kranakis, E., and Maheshwari, A. Algorithms for packing two circles in a convex polygon. In Akiyama, J., Kano, M., and Urabe, M., editors, *Discrete and Computational Geometry, Japanese Conference, JCDCG'98, Tokyo, Japan, December 9-12, 1998, Revised Papers*, volume 1763 of *Lecture Notes in Computer Science*, pages 93–103. Springer, 1998.

[207] Bose, P., Czyzowicz, J., and Lessard, D. Cutting rectangles in equal area pieces. In *Proceedings of the 10th Canadian Conference on Computational Geometry, McGill University, Montréal, Québec, Canada, August 10-12, 1998*, 1998.

[208] Bose, P., Hurtado, F., Meijer, H., Ramaswami, S., Rappaport, D., Sacristán, V., Shermer, T. C., and Toussaint, G. T. Finding specified sections of arrangements: 2d results. In *Proceedings of the 10th Canadian Conference on Computational Geometry, McGill University, Montréal, Québec, Canada, August 10-12, 1998*, 1998.

[209] Bose, P., and Morin, P. Testing the quality of manufactured disks and cylinders. In Chwa, K., and Ibarra, O. H., editors, *Algorithms and Computation, 9th International Symposium, ISAAC '98, Taejon, Korea, December 14-16, 1998, Proceedings*, volume 1533 of *Lecture Notes in Computer Science*, pages 129–138. Springer, 1998.

[210] de Berg, M., Bose, P., Bremner, D., Evans, W. S., and Narayanan, L. Recovering lines with fixed linear probes. In *Proceedings of the 10th Canadian Conference on Computational Geometry, McGill University, Montréal, Québec, Canada, August 10-12, 1998*, 1998.

[211] Ahn, H., de Berg, M., Bose, P., Cheng, S., Halperin, D., Matousek, J., and Schwarzkopf, O. Separating an object from its cast. In Boissonnat, J., editor, *Proceedings of the Thirteenth Annual Symposium on Computational Geometry, Nice, France, June 4-6, 1997*, pages 221–230. ACM, 1997.

[212] Bose, P. On embedding an outer-planar graph in a point set. In Battista, G. D., editor, *Graph Drawing, 5th International Symposium, GD '97, Rome, Italy, September 18-20, 1997, Proceedings*, volume 1353 of *Lecture Notes in Computer Science*, pages 25–36. Springer, 1997.

[213] de Berg, M., Bose, P., Bremner, D., Ramaswami, S., and Wilfong, G. T. Computing constrained minimum-width annuli of point sets. In Dehne, F. K. H. A., Rau-Chaplin, A., Sack, J., and Tamassia, R., editors, *Algorithms and Data Structures, 5th International Workshop, WADS '97, Halifax, Nova Scotia, Canada, August 6-8, 1997, Proceedings*, volume 1272 of *Lecture Notes in Computer Science*, pages 392–401. Springer, 1997.

[214] Avis, D., Bose, P., Toussaint, G. T., Shermer, T. C., Zhu, B., and Snoeyink, J. On the sectional area of convex polytopes. In Whitesides, S., editor, *Proceedings of the Twelfth Annual Symposium on Computational Geometry, Philadelphia, PA, USA, May 24-26, 1996*, pages C–11–C–12. ACM, 1996.

[215] Bose, P., Dean, A. M., Hutchinson, J. P., and Shermer, T. C. On rectangle visibility graphs. In North, S. C., editor, *Graph Drawing, Symposium on Graph Drawing, GD '96, Berkeley, California, USA, September 18-20, Proceedings*, volume 1190 of *Lecture Notes in Computer Science*, pages 25–44. Springer, 1996.

[216] Bose, P., Devroye, L., and Evans, W. S. Diamonds are not a minimum weight triangulation's best friend. In Fiala, F., Kranakis, E., and Sack, J., editors, *Proceedings of the 8th Canadian Conference on Computational Geometry, Carleton University, Ottawa, Canada, August 12-15, 1996*, pages 68–73. Carleton University Press, 1996.

[217] Bose, P., Evans, W. S., Kirkpatrick, D. G., McAllister, M., and Snoeyink, J. Approximating shortest paths in arrangements of lines. In Fiala, F., Kranakis, E., and Sack, J., editors, *Proceedings of the 8th Canadian Conference on Computational Geometry, Carleton University, Ottawa, Canada, August 12-15, 1996*, pages 143–148. Carleton University Press, 1996.

[218] Bose, P., Kirkpatrick, D. G., and Li, Z. Efficient algorithms for guarding or illuminating the surface of a polyhedral terrain. In Fiala, F., Kranakis, E., and Sack, J., editors, *Proceedings of the 8th Canadian Conference on Computational Geometry, Carleton University, Ottawa, Canada, August 12-15, 1996*, pages 217–222. Carleton University Press, 1996.

[219] Bose, P., and Toussaint, G. T. Computing the constrained euclidean geodesic and link center of a simple polygon with application. In *Computer Graphics International Conference, CGI 1996, Pohang, Korea, June 24-28, 1996*, pages 102–110. IEEE Computer Society, 1996.

[220] de Berg, M., Bose, P., Dobrindt, K., van Kreveld, M. J., Overmars, M. H., de Groot, M., Roos, T., Snoeyink, J., and Yu, S. The complexity of rivers in triangulated terrains. In Fiala, F., Kranakis, E., and Sack, J., editors, *Proceedings of the 8th Canadian Conference on Computational Geometry, Carleton University, Ottawa, Canada, August 12-15, 1996*, pages 325–330. Carleton University Press, 1996.

[221] Bose, P., Gómez, F., Ramos, P. A., and Toussaint, G. T. Drawing nice projections of objects in space. In Brandenburg, F., editor, *Graph Drawing, Symposium on Graph Drawing, GD '95, Passau, Germany, September 20-22, 1995, Proceedings*, volume 1027 of *Lecture Notes in Computer Science*, pages 52–63. Springer, 1995.

[222] Bose, P., Hurtado, F., Omaña-Pulido, E., and Toussaint, G. T. Aperture angle optimization problems. In *Proceedings of the 7th Canadian Conference on Computational Geometry, Quebec City, Quebec, Canada, August 1995*, pages 73–78. Carleton University, Ottawa, Canada, 1995.

[223] Bose, P., McAllister, M., and Snoeyink, J. Optimal algorithms to embed trees in a point set. In Brandenburg, F., editor, *Graph Drawing, Symposium on Graph Drawing, GD '95, Passau, Germany, September 20-22, 1995, Proceedings*, volume 1027 of *Lecture Notes in Computer Science*, pages 64–75. Springer, 1995.

[224] Bose, P., and Toussaint, G. T. No quadrangulation is extremely odd. In Staples, J., Eades, P., Katoh, N., and Moffat, A., editors, *Algorithms and Computation, 6th International Symposium, ISAAC '95, Cairns, Australia, December 4-6, 1995, Proceedings*, volume 1004 of *Lecture Notes in Computer Science*, pages 372–381. Springer, 1995.

[225] Belleville, P., Bose, P., Czyzowicz, J., Urrutia, J., and Zaks, J. K-guarding polygons on the plane. In *Proceedings of the 6th Canadian Conference on Computational Geometry, Saskatoon, SK, Canada, August 1994*, pages 381–386. University of Saskatchewan, 1994.

[226] Bose, P., Battista, G. D., Lenhart, W. J., and Liotta, G. Proximity constraints and representable trees. In Tamassia, R., and Tollis, I. G., editors, *Graph Drawing, DIMACS International Workshop, GD '94, Princeton, New Jersey, USA, October 10-12, 1994, Proceedings*, volume 894 of *Lecture Notes in Computer Science*, pages 340–351. Springer, 1994.

[227] Bose, P., Bremner, D., and Toussaint, G. T. All convex polyhedra can be clamped with parallel jaw grippers. In *Proceedings of the 6th Canadian Conference on Computational Geometry, Saskatoon, SK, Canada, August 1994*, pages 344–349. University of Saskatchewan, 1994.

[228] Bose, P., Bremner, D., and van Kreveld, M. J. Determining the castability of simple polyhedra. In Mehlhorn, K., editor, *Proceedings of the Tenth Annual Symposium on Computational Geometry, Stony Brook, New York, USA, June 6-8, 1994*, pages 123–131. ACM, 1994.

[229] Bose, P., Houle, M. E., and Toussaint, G. T. Every set of disjoint line segments admits a binary tree. In Du, D., and Zhang, X., editors, *Algorithms and Computation, 5th International Symposium, ISAAC '94, Beijing, P. R. China, August 25-27, 1994, Proceedings*, volume 834 of *Lecture Notes in Computer Science*, pages 20–28. Springer, 1994.

[230] Asberg, B., Blanco, G., Bose, P., Garcia-Lopez, J., Overmars, M. H., Toussaint, G. T., Wilfong, G. T., and Zhu, B. Feasability of design in stereolithography. In Shyamasundar, R. K., editor, *Foundations of Software Technology and Theoretical Computer Science, 13th Conference, Bombay, India, December 15-17, 1993, Proceedings*, volume 761 of *Lecture Notes in Computer Science*, pages 228–237. Springer, 1993.

[231] Bose, P., Buss, J. F., and Lubiw, A. Pattern matching for permutations. In Dehne, F. K. H. A., Sack, J., Santoro, N., and Whitesides, S., editors, *Algorithms and Data Structures, Third Workshop, WADS '93, Montréal, Canada, August 11-13, 1993, Proceedings*, volume 709 of *Lecture Notes in Computer Science*, pages 200–209. Springer, 1993.

[232] Bose, P., Everett, H., Fekete, S., Lubiw, A., Meijer, H., Romanik, K., Shermer, T., and Whitesides, S. On a visibility representation for graphs in three dimensions. In *Proc. Graph Drawing'93*, pages 38–39, 1993.

[233] Bose, P., Guibas, L. J., Lubiw, A., Overmars, M. H., Souvaine, D. L., and Urrutia, J. The floodlight problem. In *Proceedings of the 5th Canadian Conference on Computational Geometry, Waterloo, Ontario, Canada, August 1993*, pages 399–404. University of Waterloo, 1993.

[234] Bose, P., and Toussaint, G. Geometric and computational aspects of injection molding. In *Proc. Third International Conf. on CAD and Computer Graphics*, pages 237–242, 1993.

[235] Bose, P., van Kreveld, M. J., and Toussaint, G. T. Filling polyhedral molds. In Dehne, F. K. H. A., Sack, J., Santoro, N., and Whitesides, S., editors, *Algorithms and Data Structures, Third Workshop, WADS '93, Montréal, Canada, August 11-13, 1993, Proceedings*, volume 709 of *Lecture Notes in Computer Science*, pages 210–221. Springer, 1993.

[236] Bose, P., Lubiw, A., and Munro, J. I. Efficient visibility queries in simple polygons. *CCCG*, 1992.

[237] Bose, P., Shermer, T., Toussaint, G., and Zhu, B. Guarding polyhedral terrains. *Proceedings of the Allerton Conference on Communication, Control and Computing*, 1992.

[238] Bose, P., and Toussaint, G. Geometric and computational aspects of injection molding. *M.S.I. Conference on Computational Geometry, Stony Brook, NY*, 1992.

Archive Papers

[1] Bose, P., D'Angelo, A., and Durocher, S. Approximating the smallest k-enclosing geodesic disc in a simple polygon. *CoRR*, abs/2402.00336, 2024.

[2] Biniaz, A., Bose, P., Carufel, J. D., Maheshwari, A., Miraftab, B., Odak, S., Smid, M., Smorodinsky, S., and Yuditsky, Y. On separating path and tree systems in graphs. *CoRR*, abs/2312.14295, 2023.

[3] Bose, P., Carufel, J. D., and Njoo, S. The exact spanning ratio of the parallelogram delaunay graph. *CoRR*, abs/2312.14305, 2023.

[4] Bose, P., D'Angelo, A., and Durocher, S. On the restricted k-steiner tree problem. *CoRR*, abs/2306.08504, 2023.

[5] Bose, P., Dujmovic, V., Houdrouge, H., Morin, P., and Odak, S. Connected dominating sets in triangulations. *CoRR*, abs/2312.03399, 2023.

[6] Bose, P., and Tuttle, T. Routing on heavy path WSPD spanners. *CoRR*, abs/2312.15145, 2023.

[7] Bose, P., Carufel, J. D., and Shermer, T. C. Pursuit-evasion in graphs: Zombies, lazy zombies and a survivor. *CoRR*, abs/2204.11926, 2022.

[8] Bose, P., Dujmovic, V., Houdrouge, H., Javarsineh, M., and Morin, P. Linear versus centred chromatic numbers. *CoRR*, abs/2205.15096, 2022.

[9] Bose, P., Morin, P., and Odak, S. An optimal algorithm for product structure in planar graphs. *CoRR*, abs/2202.08870, 2022.

[10] Bhore, S., Bose, P., Cano, P., Cardinal, J., and Iacono, J. Dynamic schnyder woods. *CoRR*, abs/2106.14451, 2021.

[11] Bose, P., Cano, P., Fagerberg, R., Iacono, J., Jacob, R., and Langerman, S. Fragile complexity of adaptive algorithms. *CoRR*, abs/2102.00338, 2021.

[12] Bose, P., Dujmovic, V., Javarsineh, M., Morin, P., and Wood, D. R. Separating layered treewidth and row treewidth. *CoRR*, abs/2105.01230, 2021.

[13] Bose, P., Esteban, G., Orden, D., and Silveira, R. I. On approximating shortest paths in weighted triangular tessellations. *CoRR*, abs/2111.13912, 2021.

[14] Bose, P., Hill, D., and Ooms, A. Improved spanning on theta-5. *CoRR*, abs/2106.01236, 2021.

[15] Aichholzer, O., Borrazzo, M., Bose, P., Cardinal, J., Frati, F., Morin, P., and Vogtenhuber, B. Drawing graphs as spanners. *CoRR*, abs/2002.05580, 2020.

[16] Bose, P., Cano, P., and Silveira, R. I. Affine invariant triangulations. *CoRR*, abs/2011.02197, 2020.

[17] Bose, P., Dujmovic, V., Javarsineh, M., and Morin, P. Asymptotically optimal vertex ranking of planar graphs. *CoRR*, abs/2007.06455, 2020.

[18] Bose, P., Mehrabi, S., and Mondal, D. (faster) multi-sided boundary labelling. *CoRR*, abs/2002.09740, 2020.

[19] Bose, P., Mehrabi, S., and Mondal, D. Parameterized complexity of two-interval pattern problem. *CoRR*, abs/2002.05099, 2020.

[20] Bose, P., Cardinal, J., Iacono, J., Koumoutsos, G., and Langerman, S. Competitive online search trees on trees. *CoRR*, abs/1908.00848, 2019.

[21] Bose, P., Carmi, P., Keil, J. M., Maheshwari, A., Mehrabi, S., Mondal, D., and Smid, M. H. M. Computing maximum independent set on outerstring graphs and their relatives. *CoRR*, abs/1903.07024, 2019.

[22] Bose, P., Carufel, J. D., and Devillers, O. Expected complexity of routing in $Θ$ 6 and half-$Θ$ 6 graphs. *CoRR*, abs/1910.14289, 2019.

[23] Arseneva, E., Bose, P., Cano, P., D'Angelo, A., Dujmovic, V., Frati, F., Langerman, S., and Tappini, A. Pole dancing: 3d morphs for tree drawings. *CoRR*, abs/1808.10738, 2018.

[24] Biniaz, A., Bose, P., Carmi, P., Maheshwari, A., Munro, J. I., and Smid, M. H. M. Faster algorithms for some optimization problems on collinear points. *CoRR*, abs/1802.09505, 2018.

[25] Biniaz, A., Bose, P., Ooms, A., and Verdonschot, S. Improved bounds for guarding plane graphs with edges. *CoRR*, abs/1804.07150, 2018.

[26] Bose, P., Carmi, P., Dujmovic, V., Mehrabi, S., Montecchiani, F., Morin, P., and da Silveira, L. F. S. X. Geodesic obstacle representation of graphs. *CoRR*, abs/1803.03705, 2018.

[27] Bose, P., Carmi, P., Dujmovic, V., and Morin, P. Near-optimal o(k)-robust geometric spanners. *CoRR*, abs/1812.09913, 2018.

[28] Bose, P., Carmi, P., Keil, J. M., Mehrabi, S., and Mondal, D. Boundary labeling for rectangular diagrams. *CoRR*, abs/1803.10812, 2018.

[29] Bose, P., Carufel, J. D., Hill, D., and Smid, M. H. M. On the spanning and routing ratio of theta-four. *CoRR*, abs/1808.01298, 2018.

[30] Bose, P., Carufel, J. D., Khramtcova, E., and Verdonschot, S. Reconstructing a convex polygon from its ω-cloud. *CoRR*, abs/1801.02162, 2018.

[31] Bose, P., Korman, M., van Renssen, A., and Verdonschot, S. Routing on the visibility graph. *CoRR*, abs/1803.02979, 2018.

[32] Bose, P., and Shermer, T. C. Gathering by repulsion. *CoRR*, abs/1809.09792, 2018.

[33] Bose, P., Carufel, J. D., Shaikhet, A., and Smid, M. H. M. Art gallery localization. *CoRR*, abs/1706.06938, 2017.

[34] Bose, P., Carufel, J. D., Shaikhet, A., and Smid, M. H. M. Optimal art gallery localization is np-hard. *CoRR*, abs/1706.08016, 2017.

[35] Bose, P., Fagerberg, R., Howat, J., and Morin, P. Biased predecessor search. *CoRR*, abs/1707.01182, 2017.

[36] Bose, P., Fagerberg, R., van Renssen, A., and Verdonschot, S. On plane constrained bounded-degree spanners. *CoRR*, abs/1704.03596, 2017.

[37] Bose, P., Halperin, D., and Shamai, S. On the separation of a polyhedron from its single-part mold. *CoRR*, abs/1708.04203, 2017.

[38] Bose, P., Korman, M., van Renssen, A., and Verdonschot, S. Constrained routing between non-visible vertices. *CoRR*, abs/1710.08060, 2017.

[39] Bose, P., Kostitsyna, I., and Langerman, S. Self-approaching paths in simple polygons. *CoRR*, abs/1703.06107, 2017.

[40] Bose, P., Pennarun, C., and Verdonschot, S. Power domination on triangular grids. *CoRR*, abs/1707.02760, 2017.

[41] Bahoo, Y., Banyassady, B., Bose, P., Durocher, S., and Mulzer, W. Time-space trade-off for finding the k-visibility region of a point in a polygon. *CoRR*, abs/1603.02853, 2016.

[42] Biniaz, A., Bose, P., Carufel, J. D., Gavoille, C., Maheshwari, A., and Smid, M. H. M. Towards plane spanners of degree 3. *CoRR*, abs/1606.08824, 2016.

[43] Biniaz, A., Bose, P., Eppstein, D., Maheshwari, A., Morin, P., and Smid, M. H. M. Spanning trees in multipartite geometric graphs. *CoRR*, abs/1611.01661, 2016.

[44] Bonichon, N., Bose, P., Carmi, P., Kostitsyna, I., Lubiw, A., and Verdonschot, S. Gabriel triangulations and angle-monotone graphs: Local routing and recognition. *CoRR*, abs/1608.08892, 2016.

[45] Bose, P., Carufel, J. D., Shaikhet, A., and Smid, M. H. M. Essential constraints of edge-constrained proximity graphs. *CoRR*, abs/1607.01294, 2016.

[46] Bose, P., Carufel, J. D., and van Renssen, A. Constrained generalized delaunay graphs are plane spanners. *CoRR*, abs/1602.07365, 2016.

[47] Bose, P., Morin, P., and van Renssen, A. The price of order. *CoRR*, abs/1602.00399, 2016.

[48] Ahn, H., Barba, L., Bose, P., Carufel, J. D., Korman, M., and Oh, E. A linear-time algorithm for the geodesic center of a simple polygon. *CoRR*, abs/1501.00561, 2015.

[49] Biniaz, A., Bose, P., Maheshwari, A., and Smid, M. H. M. Packing plane perfect matchings into a point set. *CoRR*, abs/1501.03686, 2015.

[50] Biniaz, A., Bose, P., Maheshwari, A., and Smid, M. H. M. Plane bichromatic trees of low degree. *CoRR*, abs/1512.02730, 2015.

[51] Bonichon, N., Bose, P., Carufel, J. D., Perkovic, L., and van Renssen, A. Upper and lower bounds for competitive online routing on delaunay triangulations. *CoRR*, abs/1501.01783, 2015.

[52] Bose, P., Carmi, P., Damian, M., Carufel, J. D., Hill, D., Maheshwari, A., Liu, Y., and Smid, M. H. M. On the stretch factor of convex polyhedra whose vertices are (almost) on a sphere. *CoRR*, abs/1507.06856, 2015.

[53] Bose, P., Carufel, J. D., Dobbins, M. G., Kim, H., and Viglietta, G. The shadows of a cycle cannot all be paths. *CoRR*, abs/1507.02355, 2015.

[54] Bose, P., Carufel, J. D., Shaikhet, A., and Smid, M. H. M. Probing convex polygons with a wedge. *CoRR*, abs/1506.02572, 2015.

[55] Bose, P., Hill, D., and Smid, M. H. M. Improved spanning ratio for low degree plane spanners. *CoRR*, abs/1506.09061, 2015.

[56] Bose, P., and Verdonschot, S. Flips in edge-labelled pseudo-triangulations. *CoRR*, abs/1512.01485, 2015.

[57] Aichholzer, O., Bae, S. W., Barba, L., Bose, P., Korman, M., van Renssen, A., Taslakian, P., and Verdonschot, S. Theta-3 is connected. *CoRR*, abs/1404.7186, 2014.

[58] Barba, L., Bose, P., Carufel, J. D., Damian, M., Fagerberg, R., van Renssen, A., Taslakian, P., and Verdonschot, S. Continuous yao graphs. *CoRR*, abs/1408.4099, 2014.

[59] Bose, P., Carufel, J. D., Grimm, C., Maheshwari, A., and Smid, M. H. M. Optimal data structures for farthest-point queries in cactus networks. *CoRR*, abs/1411.1879, 2014.

[60] Bose, P., Carufel, J. D., Morin, P., van Renssen, A., and Verdonschot, S. Towards tight bounds on theta-graphs. *CoRR*, abs/1404.6233, 2014.

[61] Bose, P., and Carufel, J. D. Towards a general framework for searching on a line and searching on m rays. *CoRR*, abs/1408.6812, 2014.

[62] Bose, P., Fagerberg, R., van Renssen, A., and Verdonschot, S. Competitive local routing with constraints. *CoRR*, abs/1412.0760, 2014.

[63] Bose, P., Fagerberg, R., van Renssen, A., and Verdonschot, S. Optimal local routing on delaunay triangulations defined by empty equilateral triangles. *CoRR*, abs/1409.6397, 2014.

[64] Bose, P., and van Renssen, A. Upper bounds on the spanning ratio of constrained theta-graphs. *CoRR*, abs/1401.2127, 2014.

[65] Barba, L., Beingessner, A., Bose, P., and Smid, M. H. M. Computing covers of plane forests. *CoRR*, abs/1311.4860, 2013.

[66] Barba, L., Bose, P., Carufel, J. D., van Renssen, A., and Verdonschot, S. On the stretch factor of the theta-4 graph. *CoRR*, abs/1303.5473, 2013.

[67] Barba, L., Bose, P., Damian, M., Fagerberg, R., O'Rourke, J., van Renssen, A., Taslakian, P., and Verdonschot, S. New and improved spanning ratios for yao graphs. *CoRR*, abs/1307.5829, 2013.

[68] Bose, P., Carufel, J. D., and Durocher, S. Revisiting the problem of searching on a line. *CoRR*, abs/1310.1048, 2013.

[69] Bose, P., Dannies, K., Carufel, J. D., Doell, C., Grimm, C., Maheshwari, A., Schirra, S., and Smid, M. H. M. Network farthest-point diagrams. *CoRR*, abs/1304.1909, 2013.

[70] Bose, P., Douïeb, K., Iacono, J., and Langerman, S. The power and limitations of static binary search trees with lazy finger. *CoRR*, abs/1304.6897, 2013.

[71] Bose, P., Lubiw, A., Pathak, V., and Verdonschot, S. Flipping edge-labelled triangulations. *CoRR*, abs/1310.1166, 2013.

[72] Bose, P., Cardinal, J., Collette, S., Hurtado, F., Korman, M., Langerman, S., and Taslakian, P. Coloring and guarding arrangements. *CoRR*, abs/1205.5162, 2012.

[73] Bose, P., Dujmovic, V., Hoda, N., and Morin, P. Visibility-monotonic polygon deflation. *CoRR*, abs/1206.1982, 2012.

[74] Bose, P., Dujmovic, V., Morin, P., and Smid, M. H. M. Robust geometric spanners. *CoRR*, abs/1204.4679, 2012.

[75] Bose, P., Morin, P., van Renssen, A., and Verdonschot, S. The theta-5-graph is a spanner. *CoRR*, abs/1212.0570, 2012.

[76] Bose, P., and Verdonschot, S. A history of flips in combinatorial triangulations. *CoRR*, abs/1206.0303, 2012.

[77] Bose, P., Collette, S., Fagerberg, R., and Langerman, S. De-amortizing binary search trees. *CoRR*, abs/1111.1665, 2011.

[78] Bose, P., Jansens, D., van Renssen, A., Saumell, M., and Verdonschot, S. Making triangulations 4-connected using flips. *CoRR*, abs/1110.6473, 2011.

[79] Wuhrer, S., Shu, C., and Bose, P. Automatically creating design models from 3d anthropometry data. *CoRR*, abs/1108.4572, 2011.

[80] Bose, P., and Carufel, J. D. Minimum enclosing area triangle with a fixed angle. *CoRR*, abs/1009.3006, 2010.

[81] Bose, P., Damian, M., Douïeb, K., O'Rourke, J., Seamone, B., Smid, M. H. M., and Wuhrer, S. Pi/2-angle yao graphs are spanners. *CoRR*, abs/1001.2913, 2010.

[82] Bose, P., Devroye, L., Douïeb, K., Dujmovic, V., King, J., and Morin, P. Odds-on trees. *CoRR*, abs/1002.1092, 2010.

[83] Bose, P., Devroye, L., Douïeb, K., Dujmovic, V., King, J., and Morin, P. Point location in disconnected planar subdivisions. *CoRR*, abs/1001.2763, 2010.

[84] Bose, P., Devroye, L., Löffler, M., Snoeyink, J., and Verma, V. The dilation of the delaunay triangulation is greater than $\pi/2$. *CoRR*, abs/1006.0291, 2010.

[85] Bose, P., Douïeb, K., Dujmovic, V., and Fagerberg, R. An o(loglog n)-competitive binary search tree with optimal worst-case access times. *CoRR*, abs/1003.0139, 2010.

[86] Bose, P., and Douïeb, K. Should static search trees ever be unbalanced? *CoRR*, abs/1006.3715, 2010.

[87] Jansens, D., Bose, P., Carmi, P., Maheshwari, A., Morin, P., and Smid, M. H. M. Improved methods for generating quasi-gray codes. *CoRR*, abs/1010.0905, 2010.

[88] Abel, Z., Ballinger, B., Bose, P., Collette, S., Dujmovic, V., Hurtado, F., Kominers, S. D., Langerman, S., Pór, A., and Wood, D. R. Every large point set contains many collinear points or an empty pentagon. *CoRR*, abs/0904.0262, 2009.

[89] Bose, P., Douïeb, K., Dujmovic, V., and Howat, J. Layered working-set trees. *CoRR*, abs/0907.2071, 2009.

[90] Bose, P., Carmi, P., Collette, S., and Smid, M. H. M. On the stretch factor of convex delaunay graphs. *CoRR*, abs/0804.1041, 2008.

[91] Bose, P., Carmi, P., and Couture, M. Spanners of additively weighted point sets. *CoRR*, abs/0801.4013, 2008.

[92] Bose, P., Carmi, P., Smid, M. H. M., and Xu, D. Communication-efficient construction of the plane localized delaunay graph. *CoRR*, abs/0809.2956, 2008.

[93] Bose, P., Chen, E. Y., He, M., Maheshwari, A., and Morin, P. Succinct geometric indexes supporting point location queries. *CoRR*, abs/0805.4147, 2008.

[94] Wuhrer, S., Bose, P., Shu, C., O'Rourke, J., and Brunton, A. Morphing of triangular meshes in shape space. *CoRR*, abs/0805.0162, 2008.

[95] Bose, P., Carmi, P., Couture, M., Maheshwari, A., Morin, P., and Smid, M. H. M. Spanners of complete k-partite geometric graphs. *CoRR*, abs/0712.0554, 2007.

[96] Bose, P., Carmi, P., Couture, M., Maheshwari, A., Smid, M. H. M., and Zeh, N. Geometric spanners with small chromatic number. *CoRR*, abs/0711.0114, 2007.

[97] Bose, P., Carmi, P., Couture, M., Smid, M. H. M., and Xu, D. On a family of strong geometric spanners that admit local routing strategies. *CoRR*, abs/cs/0702117, 2007.

[98] Bose, P., Dujmovic, V., Hurtado, F., Langerman, S., Morin, P., and Wood, D. R. A polynomial bound for untangling geometric planar graphs. *CoRR*, abs/0710.1641, 2007.

[99] Bose, P., Dujmovic, V., Krizanc, D., Langerman, S., Morin, P., Wood, D. R., and Wuhrer, S. A characterization of the degree sequences of 2-trees. *CoRR*, abs/cs/0605011, 2006.

[100] Aronov, B., Bose, P., Demaine, E. D., Gudmundsson, J., Iacono, J., Langerman, S., and Smid, M. H. M. Data structures for halfplane proximity queries and incremental voronoi diagrams. *CoRR*, abs/cs/0512091, 2005.

[101] Bose, P., Czyzowicz, J., Gao, Z., Morin, P., and Wood, D. R. Simultaneous diagonal flips in plane triangulations. *CoRR*, abs/math/0509478, 2005.