

Curriculum Vitae for Jesper Jansson

Home address:

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Sweden

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Department of Communications and Computer Engineering
Graduate School of Informatics, Kyoto University
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<https://www.algo.cce.i.kyoto-u.ac.jp/jj/>

Nationality:

Swedish

Marital status:

Married

Present occupation

Associate professor at Kyoto University, Japan.

Research and interest areas

Graph algorithms, data structures, computational complexity, bioinformatics.

Academic degrees

- **Master of Science in Computer Science and Technology (M.Sc.)**, Lund University, Sweden. Awarded on 1995-11-14.
Thesis title: *Planar Minimum-Weight Triangulations*.
Thesis advisor: Dr. Christos Levcopoulos, Lund University, Sweden.
- **Licentiate degree in Computer Science (Tekn.Lic.)**, Lund University, Sweden. Awarded on 1999-06-08.
Thesis title: *Computational Aspects of Inferring Evolutionary History*.
Thesis advisor: Dr. Rolf Karlsson, Lund University, Sweden.
Faculty opponent: Dr. Pawel Winter, University of Copenhagen, Denmark.

- **Master of Science in Mathematics (M.Sc.)**, Lund University, Sweden.
Awarded on 2002-12-20.
Thesis title: *Semi-Balanced Graph Colorings*.
Thesis advisors: Professor Takeshi Tokuyama, Tohoku University, Japan, and Dr. Gert Almkvist, Lund University, Sweden.
- **Doctor of Philosophy in Computer Science (Ph.D.)**, Lund University, Sweden.
Awarded on 2003-04-14.
Thesis title: *Consensus Algorithms for Trees and Strings*.
Thesis advisor: Professor Andrzej Lingas, Lund University, Sweden.
Faculty opponent: Professor Tao Jiang, University of California - Riverside, U.S.A.

Employment history

- July 1992 – June 1993: Served one year in the Swedish Air Force. Finished with the rank of sergeant.
- Summer 1994: C programmer, Axis Communications, Lund, Sweden.
- Summer 1995: IAESTE trainee at DB-Manager Oy, Tampere, Finland.
- January 1996 – June 2003: Doktorand & forskningsingenjör at Lund University, Sweden.
- July 2003 – October 2004: Research fellow at National University of Singapore.
- November 2004 – December 2004: Forskningsingenjör at Lund University, Sweden.
- January 2005 – March 2005: Visiting researcher at The University of Hong Kong.
- April 2005 – August 2005: Postdoctoral researcher at Kyushu University, Japan. Financially supported by Kyoto University.
- September 2005 – September 2007: JSPS Postdoctoral Fellow at Kyushu University, Japan.
- October 2007 – March 2008: Experienced research scientist [Chargé de recherche 1^{ère} classe, CR1] at INRIA Lille - Nord Europe, France.
- March 2008 – March 2012: Assistant professor at Ochanomizu University, Tokyo, Japan.
- April 2012 – March 2017: Associate professor at Kyoto University, Japan, in The Hakubi Project.
- April 2017 – April 2021: Assistant professor → associate professor at The Hong Kong Polytechnic University (PolyU), Hong Kong, China.
- From May 2021: Associate professor at Kyoto University, Japan.

Awards

- **Best Paper Award** in Bioinformatics at The Twentieth IEEE International Conference on Bioinformatics and BioEngineering (IEEE BIBE 2020). Awarded on 2020-10-28. Joint work with Ho Yin Yuen. See reference C63) below for bibliographic information.

Scholarships and grants received

- Samfonden för Ängelholms gymnasieskola, June 1989.
- N. Aschans fond (Lund University), May 1992.
- Emmy Ekbergs stipendiefond nummer 2 (Helsingkrona nation), November 1993.
- Hastferska fond nummer 3 (Lund University), December 1993.
- Carl Jönssons understödsfond II, December 1993.
- A. Löfvings fond (Lund University), May 1994.
- Carl Jönssons understödsfond II, December 1994.
- Carl Jönssons understödsfond II, December 1995.
- Hans Emil Hanssons forskningsfond, November 1997.
- Stiftelsen BLANCEFLOR Boncompagni-Ludovisi, född Bildt, May 1998.
- Ängelholms Rotaryklubb, stipendiefonden, June 1998.
- Civilingenjören Hakon Hanssons stiftelse, May 2001.
- Sweden-Japan Foundation, May 2001.
- JSPS (Japan Society for the Promotion of Science) Postdoctoral Fellowship, Time period: September 2005 – August 2007.
Amount: 392,000 JPY per month
The selection rate for applicants to this program in 2005 was $300/1340 = 22.4\%$.
- Externally funded grant where I was the PI: JSPS (Japan Society for the Promotion of Science) Grant-in-Aid for JSPS Fellows.
Project title: “Efficient approximation algorithms for trees and networks”.
KAKENHI research project number: 05F05277.
Time period: April 2006 – September 2007.
Amount: 1,600,000 JPY
- Externally funded grant where I was the PI: JST (Japan Science and Technology Agency) research budget for Ochanomizu University’s “Academic Production” project.
Title of my research program: “Graph Algorithms with Applications to Bioinformatics”.
Time period: April 2008 – March 2012.
Amount: 8,645,000 JPY
Remark: This was a special grant for Assistant Professors accepted to Ochanomizu University’s “Academic Production” project. The selection rate for applicants to the “Academic Production” project in 2007 was $9/187 = 4.8\%$.
- Internally funded grant where I was a co-I: Ochanomizu University Grant for Joint Research. PI: Dr. Jun Sese.
Time period: November 2008.
Amount: 230,000 JPY allocated to me

- Externally funded grant where I was the PI: JSPS (Japan Society for the Promotion of Science) Grant-in-Aid for Young Scientists (B).
Project title: “Comparing and Combining Trees”.
KAKENHI grant number: 23700011.
Time period: April 2011 – March 2014.
Amount: 2,600,000 JPY
Acceptance rate: $6787/22688 = 29.9\%$
- Internally funded grant where I was the PI: Kyoto University’s “Hakubi Project”.
Title of my research program: “Algorithmic Graph Theory with Applications to Bioinformatics”.
Time period: April 2012 – March 2017.
Amount: 10,100,000 JPY
Remark: This was a special grant for Assistant Professors and Associate Professors accepted to Kyoto University’s “Hakubi Project”. The selection rate for applicants to the “Hakubi Project” in 2011 was $19/416 = 4.6\%$.
- Externally funded grant where I was the PI: JSPS (Japan Society for the Promotion of Science) Grant-in-Aid for Scientific Research (C).
Project title: “Fast Graph Algorithms for Phylogenetics”.
KAKENHI grant number: 26330014.
Time period: April 2014 – March 2018.
Amount: 3,500,000 JPY
Acceptance rate: $10549/35329 = 29.9\%$
- Internally funded grant where I was the PI: The Hong Kong Polytechnic University’s Start-Up Fund.
Project title: “Efficient Algorithms and Data Structures”.
Project number: 1-ZE8L.
Time period: June 2017 – December 2021.
Amount: 674,400 HKD
- Externally funded grant where I was a co-I: Research Project Grant, Natural and Engineering Sciences; funded by Vetenskapsrådet, Sweden (The Swedish Research Council). PI: Professor Andrzej Lingas, Lund University, Sweden.
Project title: “Efficient algorithms for combinatorial and geometric problems, and computational biology”.
Research project number: 2017-03750.
Time period: January 2018 – December 2022.
Amount: 3,820,000 SEK in total to share between four researchers
Acceptance rate: $325/1682 = 19.3\%$
- Externally funded grant where I was the PI: General Research Fund (GRF); funded by Research Grants Council (RGC), Hong Kong, China.
Project title: “Algorithms for Building Phylogenetic Trees”.
RGC Project Number: 15217019.
Time period: January 2020 – December 2021.
Amount: 487,393 HKD
Acceptance rate: $1006/2975 = 33.8\%$

- Internally funded grant where I was a co-I: The Hong Kong Polytechnic University One-Line Budget for the Fundamentals and Software Group. PI: Dr. Qixin Wang. Project ID: P0033695.
Time period: June 2020 – March 2022.
Amount: 720,000 HKD in total to share between six researchers
- Externally funded grant where I was the PI: General Research Fund (GRF); funded by Research Grants Council (RGC), Hong Kong, China.
Project title: “Approximation Algorithms for Phylogenetic Networks”.
RGC Project Number: 15221420.
Time period: January 2021 – December 2021.
Amount: 718,234 HKD
Acceptance rate: $1058/2872 = 36.8\%$
- Externally funded grant where I was the PI: JSPS (Japan Society for the Promotion of Science) Grant-in-Aid for Scientific Research (B).
Project title: “Phylogenetic Network Simplification”.
KAKENHI grant number: 22H03550.
Time period: April 2022 – March 2025.
Amount: 13,100,000 JPY
Acceptance rate: $3403/11552 = 29.5\%$

Teaching record

- Lund University, Sweden:

<i>Time period</i>	<i>Course code: Course name</i>	<i>Task</i>
Jan.-March, 1996	EDA220: Computer Graphics	Teaching assistant
March-May, 1996	EDA020: Computer Programming 2	Teaching assistant
Sept.-Oct., 1996	EDA025: Algorithms & Data Structures	Teaching assistant
Sept.-Dec., 1996	EDA120/DAT116: Functional Programming	Teaching assistant
Jan.-March, 1997	EDA140: Formal Languages & Automata	Lecturer
Sept.-Dec., 1997	EDA120/DAT116: Functional Programming	Teaching assistant
Jan.-March, 1998	EDA140: Formal Languages & Automata	Lecturer
Jan.-March, 1999	EDA140: Formal Languages & Automata	Lecturer
Sept.-Dec., 1999	EDA120/DAT116: Functional Programming	Teaching assistant
Jan.-March, 2000	EDA140: Formal Languages & Automata	Lecturer
Sept.-Dec., 2000	DAT124: Computational Biology	Lecturer
Jan.-March, 2001	EDA026: Algorithms & Data Structures	Teaching assistant
March-May, 2002	021014/437: Approximation Algorithms	Lecturer
Sept.-Oct., 2002	EDA120/DAT116: Functional Programming	Teaching assistant
Sept.-Dec., 2002	DAT124: Computational Biology	Lecturer
Jan.-Feb., 2008	DATN11: Computational Biology	Lecturer

Assignment and exam grading, in addition to the courses listed above:

EDA010: Computer Programming 1,
 EDA011: Programming, First Course,
 EDA080: Technology, Society, and Communication,
 EDA100: Introduction to Computer Science.

- Université des Sciences et Technologies de Lille, France:

<i>Time period</i>	<i>Course name</i>	<i>Task</i>
Nov.-Dec., 2007	Cours du Master Recherche Informatique en Bio-informatique	Lecturer

- Ochanomizu University, Japan:

<i>Time period</i>	<i>Course name</i>	<i>Task</i>
Nov., 2009	Integrated Bioinformatics (w. Tokyo Medical & Dental University)	Guest lecturer
Nov., 2009	Rigaku Souron, “Exact String Matching”	Lecturer
Jan., 2010	Data Mining, “Introduction to Data Streaming”	Guest lecturer
Dec., 2010	Rigaku Souron, “Introduction to Graph Coloring”	Lecturer

- Tokyo Institute of Technology, Japan:

<i>Time period</i>	<i>Course name</i>	<i>Task</i>
Sept., 2010	3rd CompView Fall School on Algorithmic Bioinformatics Global COE Project “CompView”	Lecturer

- Kyoto University, Japan:

<i>Time period</i>	<i>Course name</i>	<i>Task</i>
Oct., 2011	Informatics Seminar / Perspective in Informatics 4B	Guest lecturer
Oct., 2013	Informatics Seminar / Perspectives in Informatics 5	Guest lecturer

- Tohoku University, Japan:

<i>Time period</i>	<i>Course name</i>	<i>Task</i>
July, 2012	Information Technology Fundamental / Introduction to Algorithms in Bioinformatics	Lecturer
Aug., 2014	Information Technology Fundamental / Introduction to Algorithms in Bioinformatics	Lecturer

- The Hong Kong Polytechnic University (PolyU), China:

<i>Time period</i>	<i>Course name</i>	<i>Task</i>
Sept.-Dec., 2017	COMP3011: Design and Analysis of Algorithms	Lecturer
Jan.-May, 2018	COMP2022: Programming for FinTech Applications	Lecturer
Sept.-Dec., 2018	COMP1011: Programming Fundamentals	Lecturer
Sept.-Dec., 2018	COMP3011: Design and Analysis of Algorithms	Lecturer
Jan.-May, 2019	COMP2022: Programming for FinTech Applications	Lecturer
Sept., 2019 - Jan., 2020	COMP3011: Design and Analysis of Algorithms	Lecturer
Oct., 2019 - Jan., 2020	COMP6701: Advanced Topics in Computer Algorithms (the second half of the course)	Lecturer
Feb.-May, 2020	COMP1011: Programming Fundamentals	Lecturer
Sept.-Dec., 2020	COMP1011: Programming Fundamentals	Lecturer
Sept.-Dec., 2020	COMP3011: Design and Analysis of Algorithms	Lecturer

- Kyoto University, Japan:

<i>Time period</i>	<i>Course name</i>	<i>Task</i>
May-Aug., 2021	T052003: Introduction to Algorithms	Lecturer
May-Aug., 2021	T065001: Introduction to Formal Languages	Lecturer
May-Aug., 2021	M307001 / 3618000: Introduction to Algorithms and Informatics	Lecturer
Oct., 2021 - Feb., 2022	T052002: Introduction to Algorithms	Lecturer
Oct., 2021 - Feb., 2022	T065002: Introduction to Formal Languages	Lecturer
Oct.-Dec., 2021	3614000: Theory of Computational Complexity, part 1	Lecturer
Oct.-Nov., 2021	8045000: Perspectives in Informatics 5 (three lectures)	Lecturer
April-Aug., 2022	T052003: Introduction to Algorithms	Lecturer
April-Aug., 2022	T065001: Introduction to Formal Languages	Lecturer
April-Aug., 2022	M307001 / 3618000: Introduction to Algorithms and Informatics	Lecturer
Oct., 2022 - Feb., 2023	T052002: Introduction to Algorithms	Lecturer
Oct., 2022 - Feb., 2023	T065002: Introduction to Formal Languages	Lecturer
Oct.-Dec., 2022	3614000: Theory of Computational Complexity, part 1	Lecturer
Oct.-Nov., 2022	8045000: Perspectives in Informatics 5 (three lectures)	Lecturer
April-Aug., 2023	T052003: Introduction to Algorithms	Lecturer
April-Aug., 2023	T065001: Introduction to Formal Languages	Lecturer
April-Aug., 2023	M307001 / 3618000: Introduction to Algorithms and Informatics	Lecturer
Oct., 2023 - Feb., 2024	T052002: Introduction to Algorithms	Lecturer
Oct., 2023 - Feb., 2024	T065002: Introduction to Formal Languages	Lecturer
Oct.-Dec., 2023	3614000: Theory of Computational Complexity, part 1	Lecturer
Oct.-Nov., 2023	8045000: Perspectives in Informatics 5 (three lectures)	Lecturer
April-Aug., 2024	T052003: Introduction to Algorithms	Lecturer
April-Aug., 2024	T065001: Introduction to Formal Languages	Lecturer
April-Aug., 2024	M307001 / 3618000: Introduction to Algorithms and Informatics	Lecturer

- The University of Electro-Communications, Chofu, Japan:

<i>Time period</i>	<i>Course name</i>	<i>Task</i>
June 2024	Summer school of the Thirty-Fifth Annual Symposium on Combinatorial Pattern Matching (CPM 2024)	Lecturer

Students and post-docs

Supervision of undergraduate final-year projects (“Capstone Projects”) at The Hong Kong Polytechnic University (PolyU), Hong Kong, China:

- Pui San (Raymond) Ng. Project title: “Faster Payment System in PolyU”. Completed on 2019-04-25.
- Wing Sze (Cissy) Chan. Project title: “Student Financial Support Advising System”. Completed on 2020-05-30.
- Honglong Li. Project title: “Implementation of Succinct Data Structures and their Application on a Blockchain”. Completed on 2020-05-30.
- Mingrui Cheng. Project title: “Implementation and Improvement of Matrix Multiplication Algorithms”. Completed on 2020-06-01.

- Yiu Chau (Andy) Tam. Project title: “Fast Computation of the Rooted Binary Triplet Distance”. Completed on 2020-06-01.
- Ho Yin (Andy) Yuen. Project title: “Better Link Prediction for Protein-Protein Interaction Networks”. Completed on 2020-06-01.
- Quan Xue. Project title: “Investigation of an Unexplored Graph Orientation Problem”. Completed on 2020-06-02.
- Ruixi Wang. Project title: “Phylogenetic Network Comparison Algorithms”. Completed on 2021-04-28.
- Chui Ying (Zoe) Yau. Project title: “Supertree Algorithms”. Completed on 2021-04-28.
- Wing Lik (Alex) Lee. Project title: “Computing the Rooted Triplet Distance Between Phylogenetic Trees”. Completed on 2021-04-28.
- Ho Keung (Ryan) Choi. Project title: “Tools for Analyzing Stock Price - Online Community Activity Relationships”. Completed on 2021-04-28.
- Yimin Dai. Project title: “The Asymmetrically Edge-Weighted Minimize Max Out-Degree Problem”. Completed on 2021-04-28.
- Hiu Kan Lam. Project title: “An Online Shopping System with Interactive Advertisements”. Completed on 2021-04-28.

Supervision of Master’s Theses:

- Lotta Waxberg.
Thesis title: “Pre-Ordering System Using XML”.
Completed on 2001-02-14 at Lund University, Sweden.
- Ramesh Rajaby.
Thesis title: “A More Practical Algorithm for the Rooted Triplet Distance”.
Completed on 2015-03-30 at the University of Milano-Bicocca, Italy, after a 6-month stay at Kyoto University, Japan. Financially supported by the EXTRA Project, Italy.
Awarded full marks (110/110 cum laude) by the University of Milano-Bicocca, Italy.

Host for visiting students:

- An-Chiang Chu: 4th year Ph.D. student at the Department of Computer Science and Information Engineering, National Taiwan University. Research topic: “Nonlinear Recurrences for Analyzing Phylogenetic Networks”. Period of visit: 2011-07-04 – 2011-08-28. Scholarship to visit Japan obtained from National Science Council of Taiwan (NSC). Visit organized by Interchange Association, Japan (IAJ)’s Summer Program.
- Peter Floderus: 4th year Ph.D. student at the Department of Computer Science, Lund University, Sweden. Research topic: “Polynomial-Time Approximation Algorithms”. Period of visit: 2014-09-01 – 2014-09-05. Financially supported by Kyoto University, Japan.
- Mohammadhesam Nikpeysalekde (Hesam Nikpey): 4th year undergraduate student at the Department of Computer Engineering, Sharif University of Technology, Iran. Research topic: “Graph Orientation with Splits”. Period of visit: 2017-08-14 – 2017-09-20. Financially supported by Sharif University of Technology, Iran.

- Konstantinos Mampentzidis: 3rd year Ph.D. student at the Department of Computer Science, Aarhus University, Denmark. Research topic: “ q -Resolved Supertrees”. Period of visit: 2018-02-05 – 2018-07-03. Financially supported by Aarhus University, Denmark.
- Seyed Ali Tabatabaee: 2nd year Ph.D. student at the Department of Computer Science, the University of British Columbia, Canada. Research topic: “Consensus Trees”. Period of visit: 2023-07-01 – 2023-08-25. Financially supported by Kyoto University, Japan, and the University of British Columbia, Canada.

Post-docs:

- Dr. Richard S. Lemence, Ochanomizu University, Japan. Research topic: “Minimally Resolved Phylogenetic Supertrees”. Time period: 2009-05-01 – 2012-03-31.
- Dr. Sandhya Thekkumpadan Puthiyaveedu (Sandhya T. P.), The Hong Kong Polytechnic University (PolyU), Hong Kong, China. Research topic: “Efficient Algorithms and Data Structures”. Time period: 2017-12-11 – 2018-12-10.
- Dr. Daniel J. Harvey, Kyoto University, Japan. Research topic: “MUL-Tree Pruning”. Time period: 2022-10-01 – 2023-03-31.
- Dr. Mikołaj Marciniak. Kyoto University, Japan. Research topic: “Fan Triplets Consistency”. Time period: 2023-12-01 – 2024-03-31.

Service to the scientific community

Journal editorial board membership:

- Member of the Editorial Board of *Algorithms*, ISSN 1999-4893, Multidisciplinary Digital Publishing Institute (MDPI), Switzerland, since August 2008.
Also: Section Editor-in-Chief for the “Analysis of Algorithms and Complexity Theory” section since September 2020.
<https://www.mdpi.com/journal/algorithms/>
- Guest Editor for a special issue of *Algorithms* (see above) entitled “Graph Algorithms”, 2013. Nine articles containing original research were accepted.
https://www.mdpi.com/journal/algorithms/special_issues/graph_algorithms
- Guest Editor for a special issue of *Algorithms* (see above) entitled “Efficient Data Structures”, 2019. Six articles containing original research were accepted.
https://www.mdpi.com/journal/algorithms/special_issues/Efficient_Data_Structures
- Guest Editor for a special issue of *Algorithms* (see above) entitled “Surveys in Algorithm Analysis and Complexity Theory”, 2023. Four articles containing original research were accepted.
https://www.mdpi.com/journal/algorithms/special_issues/survey_algorithm_complexity
- Guest Editor for a special issue of *Algorithms* (see above) entitled “Surveys in Algorithm Analysis and Complexity Theory, Part II”, 2024. In progress.
https://www.mdpi.com/journal/algorithms/special_issues/SP3XYE05P2

- Managing Guest Editor for a special issue of *Journal of Computer and System Sciences*, Elsevier, 2020–2021, containing selected papers from the Twenty-Second International Symposium on Fundamentals of Computation Theory (FCT 2019). Co-Guest Editors: Leszek A. Gąsieniec and Christos Levcopoulos. Nine articles containing original research were accepted.

<https://www.sciencedirect.com/journal/journal-of-computer-and-system-sciences/special-issue/1049P6K8M0F>

International conference program committee, co-chair:

- The Twenty-Second International Symposium on Fundamentals of Computation Theory (FCT 2019), Copenhagen, Denmark, August 2019.

<https://di.ku.dk/fct2019/>

International conference program committee, member:

- The First International Conference on Theories and Applications of Computer Science (ICTACS'06), Ho Chi Minh City, Vietnam, August 2006.
- The Second International Conference on Theories and Applications of Computer Science (ICTACS'09), Nha Trang, Vietnam, February 2009.
http://www.hcmuns.edu.vn/images/stories/ictacs2009_final_cfp.pdf
- The Fifth International Conference on Language and Automata Theory and Applications (LATA 2011), Tarragona, Spain, May 2011.
<http://grammars.grlmc.com/lata2011/>
- The Seventh International Workshop on Algorithms and Computation (WALCOM 2013), Kharagpur, India, February 2013.
<http://cse.iitkgp.ac.in/conf/walcom2013/>
- The Twenty-Fourth Annual Symposium on Combinatorial Pattern Matching (CPM 2013), Bad Herrenalb, Germany, June 2013.
<http://www.cpm2013.de/>
- The Twenty-Fourth International Symposium on Algorithms and Computation (ISAAC 2013), Hong Kong, China, December 2013.
<http://www.cs.hku.hk/isaac2013/>
- The Forty-Second International Colloquium on Automata, Languages, and Programming (ICALP 2015) – Track A, Kyoto, Japan, July 2015.
<http://www.kurims.kyoto-u.ac.jp/icalp2015/>
- The Eleventh International Conference on Algorithmic Aspects in Information and Management (AAIM 2016), Bergamo, Italy, July 2016.
<https://aaim2016.wordpress.com/>
- The Twenty-Seventh International Workshop on Combinatorial Algorithms (IWOCA 2016), Helsinki, Finland, August 2016.
<http://iwoca2016.cs.helsinki.fi/>

- The Twenty-Eighth International Workshop on Combinatorial Algorithms (IWOCA 2017), Newcastle, Australia, July 2017.
<https://carma.newcastle.edu.au/meetings/iwoca/>
- The Seventeenth IEEE International Conference on BioInformatics and BioEngineering (IEEE BIBE 2017), Washington, D.C., U.S.A., October 2017.
- The Twenty-Eighth International Symposium on Algorithms and Computation (ISAAC 2017), Phuket, Thailand, December 2017.
<https://saki.siit.tu.ac.th/isaac2017/>
- The Twelfth International Conference and Workshops on Algorithms and Computation (WALCOM 2018), Dhaka, Bangladesh, March 2018.
<https://cse.buet.ac.bd/walcom2018/>
- The Thirteenth Latin American Theoretical Informatics Symposium (LATIN 2018), Buenos Aires, Argentina, April 2018.
<https://www-2.dc.uba.ar/latin2018/>
- The Fifth International Conference on Algorithms for Computational Biology (AlCoB 2018), Hong Kong, China, June 2018.
<https://irdta.eu/AlCoB2018/>
- The Twenty-Ninth International Workshop on Combinatorial Algorithms (IWOCA 2018), Singapore, July 2018.
<http://www.comp.nus.edu.sg/~iwoca18/>
- The Eighteenth IEEE International Conference on BioInformatics and BioEngineering (IEEE BIBE 2018), Taichung, Taiwan, October 2018.
<http://bibe2018.asia.edu.tw/>
- The Joint Thirtieth International Conference on Genome Informatics & Australian Bioinformatics and Computational Biology Society Annual Conference (GIW/ABACBS 2019), Sydney, Australia, December 2019.
<https://www.abacbs.org/conference2019/about/>
- The Forty-Sixth International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM 2020) – Track “Foundations of Algorithmic Computational Biology”, Limassol, Cyprus, January 2020.
<http://cyprusconferences.org/sofsem2020/tracks/#tr4>
- The Fourteenth International Conference and Workshops on Algorithms and Computation (WALCOM 2020), Singapore, March – April 2020.
<https://www.comp.nus.edu.sg/~walcom20/>
- The Thirty-First International Symposium on Algorithms and Computation (ISAAC 2020), Hong Kong, China, December 2020.
<https://algo2020.comp.polyu.edu.hk/isaac.html>
- The Forty-Seventh International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM 2021) – Track “Foundations of Algorithmic Computational Biology”, Bolzano, Italy, January 2021.
<https://sofsem2021.inf.unibz.it/index.html>

- The Fifteenth International Conference and Workshops on Algorithms and Computation (WALCOM 2021), Yangon, Myanmar, February – March 2021.
<https://www.jaist.ac.jp/~uehara/walcom-2021/>
- The Fifteenth Latin American Theoretical Informatics Symposium (LATIN 2022), Guanajuato, Mexico, November 2022.
<https://pakal.cs.cinvestav.mx/latin2022/>
- The Thirty-First International Conference on Genome Informatics & International Society for Computational Biology - Asia V (GIW/ISCB-Asia 2022), Tainan, Taiwan, December 2022.
<https://www.iscb.org/giw-iscb-asia2022>
- The Eighteenth Annual Conference on Theory and Applications of Models of Computation (TAMC 2024), Hong Kong, China, May 2024.
<https://tamc2024.comp.polyu.edu.hk/>
- The Thirty-Fifth Annual Symposium on Combinatorial Pattern Matching (CPM 2024), Fukuoka, Japan, June 2024.
<https://cpm2024.github.io/>

International conference organizing committee, co-chair:

- The Fifth International Conference on Algorithms for Computational Biology (AlCoB 2018), Hong Kong, China, June 2018.
<https://irdta.eu/AlCoB2018/>

International conference organizing committee, member:

- Journées Ouvertes Biologie Informatique Mathématiques 2008 (JOBIM 2008), Lille, France, June – July 2008.
<http://www2.lifl.fr/jobim2008/en/home/>
- The First Online Conference on Algorithms (IOCA 2021), Sciform, Multidisciplinary Digital Publishing Institute (MDPI), September – October 2021.
<https://ioca2021.sciform.net>

Session chair at international conferences:

- Chair of one session at the First International Conference on Theories and Applications of Computer Science (ICTACS'06), Ho Chi Minh City, Vietnam, August 2006.
- Chair of two sessions at the Forty-Second International Colloquium on Automata, Languages, and Programming (ICALP 2015) – Track A, Kyoto, Japan, July 2015.
- Chair of one session at the Second International Conference on Algorithms for Computational Biology (AlCoB 2015), Mexico City, Mexico, August 2015.
- Chair of one session at the Forty-First International Symposium on Mathematical Foundations of Computer Science (MFCS 2016), Krakow, Poland, August 2016.

- Chair of one session at the Fifth International Conference on Algorithms for Computational Biology (AlCoB 2018), Hong Kong, China, June 2018.
- Chair of one session at the Thirty-First International Symposium on Algorithms and Computation (ISAAC 2020), Hong Kong, China, December 2020.

Reviewer for the following journals:

- *Algorithmica*'s special issue on Computational Biology (Vol. 25, Issue 2/3, 1999).
- *Journal of Combinatorial Optimization*, 2001.
- *International Journal of Foundations of Computer Science*, 2004, 2006.
- *SIAM Journal on Computing*, 2005.
- *Information Processing Letters*, 2005, 2006, 2009, 2012, 2014.
- *European Journal of Combinatorics*, 2005.
- *Journal of Discrete Algorithms*, 2005, 2010, 2018.
- *Theoretical Computer Science*, 2006, 2007.
- *Nordic Journal of Computing*, 2006.
- *Electronic Journal of Combinatorics*, 2007, 2024.
- *Theory of Computing Systems*, 2007, 2014.
- *Journal of Bioinformatics and Computational Biology*, 2008, 2014.
- *Algorithmica*'s special issue containing selected papers from ISAAC 2007 (Vol. 56, Issue 1, 2010).
- *Bioinformatics*, 2009.
- *Journal of Mathematical Biology*, 2009, 2011, 2020.
- *Algorithms*' special issue on Data Compression (Vol. 2, Issue 3, 2009).
- *Algorithms*' special issue on Algorithmic Game Theory (Vol. 3, Issue 3, 2010).
- *Journal of Information Science and Engineering*, 2009.
- *SIAM Journal on Discrete Mathematics*, 2010.
- *Algorithmica*, 2011, 2012, 2014, 2017, 2019.
- *Journal of Information Processing*'s special issue on "Mathematics of Puzzles", 2011.
- *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, 2011.
- *Discrete Applied Mathematics*, 2012, 2022.
- *Journal of Graph Algorithms and Applications*, 2013, 2016, 2020, 2021.
- *Mathematical Biosciences*, 2015.
- *Italian Journal of Pure and Applied Mathematics*, 2016.
- *Mathematical Biosciences and Engineering*, 2018.
- *Bulletin of Mathematical Biology*, 2019.

- *BMC Bioinformatics*, 2019.
- *The Computer Journal*, 2019.
- *PLOS ONE*, 2020.
- *Pattern Recognition*, 2021.
- *AIMS Mathematics*, 2021.
- *Algorithms for Molecular Biology*, 2021.
- *Thai Journal of Mathematics*, 2022.
- *Proceedings of the Royal Society A*, 2022.

Reviewer for the following international conferences:

- 12th ACM Symposium on Computational Geometry (SCG'96).
- 5th Scandinavian Workshop on Algorithm Theory (SWAT'96).
- 11th International Symposium on Fundamentals of Computation Theory (FCT'97).
- 6th Scandinavian Workshop on Algorithm Theory (SWAT'98).
- 1st International Workshop on Approximation Algorithms for Combinatorial Optimization Problems (APPROX'98).
- 7th Scandinavian Workshop on Algorithm Theory (SWAT 2000).
- 7th Symposium on String Processing and Information Retrieval (SPIRE'2000).
- 8th Scandinavian Workshop on Algorithm Theory (SWAT 2002).
- 14th International Symposium on Fundamentals of Computation Theory (FCT 2003).
- 16th Annual International Symposium on Algorithms and Computation (ISAAC 2005).
- 23rd International Symposium on Theoretical Aspects of Computer Science (STACS 2006).
- 13th Colloquium on Structural Information and Communication Complexity (SIROCCO 2006).
- 33rd International Colloquium on Automata, Languages and Programming (ICALP 2006).
- 17th Annual International Symposium on Algorithms and Computation (ISAAC 2006).
- 34th International Colloquium on Automata, Languages and Programming (ICALP 2007).
- 10th Italian Conference on Theoretical Computer Science (ICTCS 2007).
- 18th Annual International Symposium on Algorithms and Computation (ISAAC 2007).
- 25th International Symposium on Theoretical Aspects of Computer Science (STACS 2008).
- 19th Annual Symposium on Combinatorial Pattern Matching (CPM 2008).
- 14th Annual International Computing and Combinatorics Conference (COCOON 2008).

- 11th Scandinavian Workshop on Algorithm Theory (SWAT 2008).
- 3rd International Conference on Language and Automata Theory and Applications (LATA 2009).
- 20th Annual Symposium on Combinatorial Pattern Matching (CPM 2009).
- 36th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM 2010).
- 22nd Annual Symposium on Combinatorial Pattern Matching (CPM 2011).
- 2011 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2011).
- 6th International Workshop on Algorithms and Computation (WALCOM 2012).
- 18th Annual International Computing and Combinatorics Conference (COCOON 2012).
- 37th International Symposium on Mathematical Foundations of Computer Science (MFCS 2012).
- 30th International Symposium on Theoretical Aspects of Computer Science (STACS 2013).
- 13th International Symposium on Algorithms and Data Structures (WADS 2013).
- 21st Annual European Symposium on Algorithms (ESA 2013).
- 2013 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2013).
- 9th International Workshop on Algorithms and Computation (WALCOM 2015).
- 47th Annual ACM Symposium on Theory of Computing (STOC 2015).
- 42nd International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM 2016).
- 2nd International Conference on Algorithms and Discrete Applied Mathematics (CALDAM 2016).
- 18th International Conference on Integer Programming and Combinatorial Optimization (IPCO 2016).
- 3rd International Conference on Algorithms and Discrete Applied Mathematics (CALDAM 2017).
- 34th International Symposium on Theoretical Aspects of Computer Science (STACS 2017).
- 28th Annual Symposium on Combinatorial Pattern Matching (CPM 2017).
- 11th Annual International Conference on Combinatorial Optimization and Applications (COCOA 2017).
- 43rd International Symposium on Mathematical Foundations of Computer Science (MFCS 2018).
- 5th International Conference on Algorithms and Discrete Applied Mathematics (CALDAM 2019).
- 27th Annual European Symposium on Algorithms (ESA 2019).

- 37th International Symposium on Theoretical Aspects of Computer Science (STACS 2020).
- 47th International Colloquium on Automata, Languages and Programming (ICALP 2020).
- 7th International Conference on Algorithms and Discrete Applied Mathematics (CALDAM 2021).
- 27th Annual International Computing and Combinatorics Conference (COCOON 2021).
- 8th International Conference on Algorithms and Discrete Applied Mathematics (CALDAM 2022).
- 33rd Annual International Symposium on Algorithms and Computation (ISAAC 2022).
- 9th International Conference on Algorithms and Discrete Applied Mathematics (CALDAM 2023).

External referee for grant applications to:

- The Marsden Fund, New Zealand, 2012. Invited by the Royal Society of New Zealand.
- The Innovational Research Incentives Scheme, the Netherlands, 2015. Invited by the Netherlands Organisation for Scientific Research.
- The Discovery Grants Program, Canada, 2016. Invited by the Natural Sciences and Engineering Research Council of Canada (NSERC).
- TOP Grants, the Netherlands, 2017. Invited by the Netherlands Organisation for Scientific Research.
- The OPUS funding scheme, Poland, 2019. Invited by Narodowe Centrum Nauki (National Science Centre), Poland.

Other academic activities:

- Regular reviewer for American Mathematical Society (AMS)'s Mathematical Reviews (MR) since May 2007.
- Speaker and co-organizer of Ochanomizu University's Tutorial Workshop on Discrete Algorithms and Machine Learning, Tokyo, Japan, July 2009.
Main organizer: Dr. Tsuyoshi Kato
- Invited speaker at KSMAP, Feb. 2013. Research Institute for Mathematical Sciences (RIMS), Kyoto University, Japan.
- External evaluator for a Ph.D. dissertation submitted to Universitat Politècnica de Catalunya (UPC), Barcelona, Spain, 2017.
- Examiner for a Ph.D. dissertation submitted to Anna University, Chennai, India, 2017.
- Member of the doctoral committee for Mr. Yukihiro Murakami, TU Delft, The Netherlands, 2021. Title of dissertation: "On Phylogenetic Encodings and Orchard Networks".

- Member of the doctoral committee for Mr. Bo Wang, The University of Hong Kong, China, 2024. Title of dissertation: “Dynamic and Probabilistic Models in Optimization: Algorithms for Combinatorial Problems with Applications in Machine Learning”.
- Supervisor, co-examiner, or second assessor for a total of 54 undergraduate final-year projects (“Capstone Projects”) at The Hong Kong Polytechnic University (PolyU), China, 2018 – 2021.
- Academic advisor for 29 local and international undergraduate students at The Hong Kong Polytechnic University (PolyU), China, 2018 – 2021.
- Member of the Scholarship Assessment Board at The Department of Computing, The Hong Kong Polytechnic University (PolyU), China, 2020–2021.
- Member of the 2020 Best Paper Award Committee and the 2023 Best Paper Award Committee, *Algorithms*, ISSN 1999-4893, Multidisciplinary Digital Publishing Institute (MDPI), Switzerland.
- Contributor to Springer’s *Encyclopedia of Algorithms*, ISBN: 978-0-387-36061-4 (First Edition), ISBN: 978-1-4939-2863-7 (Second Edition).
- Contributor to *International Workshop on Combinatorial Algorithms (IWOCA)*’s list of open problems.
https://nms.kcl.ac.uk/iwoca/problems_list.html
- Contributor to The On-Line Encyclopedia of Integer Sequences (OEIS).
<http://oeis.org/>

Plenary talks

- Invited plenary speaker at the 2010 MSP Annual Convention, Cebu City, the Philippines, May 2010. Organized by the Mathematical Society of the Philippines (MSP).
Lecture title: “Combinatorial Algorithms for Building Phylogenetic Supertrees”.
<http://www.mathsocietyphil.org/MSPConvention2010.pdf>

Scientific publications

• Books

- B1) J. Jansson, C. Martín-Vide, and M. A. Vega-Rodríguez (Eds.). *Proceedings of the Fifth International Conference on Algorithms for Computational Biology* (AlCoB 2018), Hong Kong, China, Lecture Notes in Bioinformatics, Vol. 10849, Springer International Publishing AG, 2018. ISBN: 978-3-319-91937-9.
- B2) L. A. Gasieniec, J. Jansson, and C. Levcopoulos (Eds.). *Proceedings of the Twenty-Second International Symposium on Fundamentals of Computation Theory* (FCT 2019), Copenhagen, Denmark, Lecture Notes in Computer Science, Vol. 11651, Springer Nature Switzerland AG, 2019. ISBN: 978-3-030-25026-3.

- **Book chapters**

- BC1) J. Jansson and W.-K. Sung. “The Maximum Agreement of Two Nested Phylogenetic Networks”. Chapter 4 of **New Topics in Theoretical Computer Science**, pp. 119–141, NOVA Science Publishers, Inc., New York, 2008. ISBN: 978-1-60456-100-5.
- BC2) J. Jansson and K. Sadakane. Commentary: “Succinct Representation of Bit Vectors Supporting Efficient *rank* and *select* Queries”. Expert Commentary in **Software Engineering and Development**, pp. 3–12, Nova Science Publishers, Inc., New York, 2009. ISBN: 978-1-60692-146-3.
- BC3) J. Jansson and W.-K. Sung. “Algorithms for Combining Rooted Triplets into a Galled Phylogenetic Network”. Invited chapter in **Encyclopedia of Algorithms, Second Edition**, edited by Ming-Yang Kao, pp. 48–52, Springer Science+Business Media New York, 2016. ISBN: 978-1-4939-2863-7.
- BC4) J. Jansson. “Directed Perfect Phylogeny (Binary Characters)”. Invited chapter in **Encyclopedia of Algorithms, Second Edition**, edited by Ming-Yang Kao, pp. 553–556, Springer Science+Business Media New York, 2016. ISBN: 978-1-4939-2863-7. (An earlier version appeared in **Encyclopedia of Algorithms, First Edition**, edited by Ming-Yang Kao, pp. 246–248, Springer Science+Business Media, LLC., New York, 2008. ISBN: 978-0-387-36061-4.)
- BC5) J. Jansson and W.-K. Sung. “Maximum Agreement Supertree”. Invited chapter in **Encyclopedia of Algorithms, Second Edition**, edited by Ming-Yang Kao, pp. 1224–1227, Springer Science+Business Media New York, 2016. ISBN: 978-1-4939-2863-7.
- BC6) J. Jansson. “Perfect Phylogeny (Bounded Number of States)”. Invited chapter in **Encyclopedia of Algorithms, Second Edition**, edited by Ming-Yang Kao, pp. 1550–1553, Springer Science+Business Media New York, 2016. ISBN: 978-1-4939-2863-7. (An earlier version appeared in **Encyclopedia of Algorithms, First Edition**, edited by Ming-Yang Kao, pp. 644–647, Springer Science+Business Media, LLC., New York, 2008. ISBN: 978-0-387-36061-4.)
- BC7) J. Jansson. “Phylogenetic Tree Construction from a Distance Matrix”. Invited chapter in **Encyclopedia of Algorithms, Second Edition**, edited by Ming-Yang Kao, pp. 1564–1567, Springer Science+Business Media New York, 2016. ISBN: 978-1-4939-2863-7. (An earlier version appeared in **Encyclopedia of Algorithms, First Edition**, edited by Ming-Yang Kao, pp. 651–653, Springer Science+Business Media, LLC., New York, 2008. ISBN: 978-0-387-36061-4.)

- **Journal editorials**

- E1) J. Jansson. “Editorial: Special Issue on Graph Algorithms”. *Algorithms*, Vol. 6, No. 3, pp. 457–458, Multidisciplinary Digital Publishing Institute (MDPI), 2013.
- E2) J. Jansson. “Editorial: Special Issue on Efficient Data Structures”. *Algorithms*, Vol. 12, No. 7, Article 136, Multidisciplinary Digital Publishing Institute (MDPI), 2019.

- E3) L. Gaşieniec, J. Jansson, and C. Levcopoulos. “Foreword: Selected papers from the 22nd International Symposium on Fundamentals of Computation Theory (FCT 2019)”, *Journal of Computer and System Sciences*, Vol. 120, pp. 177–178, Elsevier Inc., 2021.
- E4) J. Jansson. “Editorial: Surveys in Algorithm Analysis and Complexity Theory (Special Issue)”, *Algorithms*, Vol. 16, No. 4, Article 188, Multidisciplinary Digital Publishing Institute (MDPI), 2023.

• **Refereed journal articles**

- J1) L. Gaşieniec, J. Jansson, A. Lingas, and A. Östlin. On the Complexity of Constructing Evolutionary Trees. *Journal of Combinatorial Optimization*, Vol. 3, No. 2–3, pp. 183–197, Kluwer Academic Publishers, 1999.
- J2) J. Jansson and A. Lingas. A Fast Algorithm for Optimal Alignment between Similar Ordered Trees. *Fundamenta Informaticae*, Vol. 56, No. 1–2, pp. 105–120, IOS Press, 2003.
- J3) L. Gaşieniec, J. Jansson, and A. Lingas. Approximation Algorithms for Hamming Clustering Problems. *Journal of Discrete Algorithms*, Vol. 2, No. 2, pp. 289–301, Elsevier B.V., 2004. (Special issue containing selected papers from the Eleventh Annual Symposium on Combinatorial Pattern Matching (CPM 2000).)
- J4) J. Jansson and T. Tokuyama. Semi-Balanced Colorings of Graphs: Generalized 2-Colorings Based on a Relaxed Discrepancy Condition. *Graphs and Combinatorics*, Vol. 20, No. 2, pp. 205–222, Springer-Verlag Tokyo, Inc., 2004.
- J5) C. Choy, J. Jansson, K. Sadakane, and W.-K. Sung. Computing the Maximum Agreement of Phylogenetic Networks. *Theoretical Computer Science*, Vol. 335, No. 1, pp. 93–107, Elsevier B.V., 2005. (Special issue on “Pattern Discovery in the Post Genome”.)
- J6) J. Jansson, J. H.-K. Ng, K. Sadakane, and W.-K. Sung. Rooted Maximum Agreement Supertrees. *Algorithmica*, Vol. 43, No. 4, pp. 293–307, Springer Science+Business Media, LLC., 2005.
- J7) J. Jansson and W.-K. Sung. Inferring a Level-1 Phylogenetic Network from a Dense Set of Rooted Triplets. *Theoretical Computer Science*, Vol. 363, No. 1, pp. 60–68, Elsevier B.V., 2006. (Special issue containing selected papers from the Tenth Annual International Computing and Combinatorics Conference (COCOON 2004).)
- J8) Y.-J. He, T. N. D. Huynh, J. Jansson, and W.-K. Sung. Inferring Phylogenetic Relationships Avoiding Forbidden Rooted Triplets. *Journal of Bioinformatics and Computational Biology*, Vol. 4, No. 1, pp. 59–74, Imperial College Press, 2006. (Special issue containing selected papers from the Third Asia-Pacific Bioinformatics Conference (APBC2005).)
- J9) J. Jansson, T. H. Ngo, and W.-K. Sung. Local Gapped Subforest Alignment and Its Application in Finding RNA Structural Motifs. *Journal of Computational Biology*, Vol. 13, No. 3, pp. 702–718, Mary Ann Liebert, Inc. publishers, 2006.

- J10) J. Jansson, S.-K. Ng, W.-K. Sung, and H. Willy. A Faster and More Space-Efficient Algorithm for Inferring Arc-Annotations of RNA Sequences through Alignment. *Algorithmica*, Vol. 46, No. 2, pp. 223–245, Springer Science+Business Media, LLC., 2006.
- J11) H.-L. Chan, J. Jansson, T.-W. Lam, and S.-M. Yiu. Reconstructing an Ultrametric Galled Phylogenetic Network from a Distance Matrix. *Journal of Bioinformatics and Computational Biology*, Vol. 4, No. 4, pp. 807–832, Imperial College Press, 2006.
- J12) J. Jansson, N. B. Nguyen, and W.-K. Sung. Algorithms for Combining Rooted Triplets into a Galled Phylogenetic Network. *SIAM Journal on Computing*, Vol. 35, No. 5, pp. 1098–1121, Society for Industrial and Applied Mathematics (SIAM), 2006.
- J13) A. Dessmark, J. Jansson, A. Lingas, E.-M. Lundell, and M. Persson. On the Approximability of Maximum and Minimum Edge Clique Partition Problems. *International Journal of Foundations of Computer Science*, Vol. 18, No. 2, pp. 217–226, World Scientific Publishing Co., 2007. (Special issue containing selected papers from Computing: the Twelfth Australasian Theory Symposium (CATS 2006).)
- J14) J. Jansson and Z. Peng. Online and Dynamic Recognition of Squarefree Strings. *International Journal of Foundations of Computer Science*, Vol. 18, No. 2, pp. 401–414, World Scientific Publishing Co., 2007.
- J15) A. Dessmark, J. Jansson, A. Lingas, and E.-M. Lundell. Polynomial-Time Algorithms for the Ordered Maximum Agreement Subtree Problem. *Algorithmica*, Vol. 48, No. 3, pp. 233–248, Springer Science+Business Media, LLC., 2007.
- J16) T. Shibuya, J. Jansson, and K. Sadakane. Linear-Time Protein 3-D Structure Searching with Insertions and Deletions. *Algorithms for Molecular Biology*, Vol. 5, Article 7, BioMed Central Ltd., 2010. (Special issue containing selected papers from the Ninth International Workshop on Algorithms in Bioinformatics (WABI 2009).)
- J17) J. Byrka, S. Guillemot, and J. Jansson. New Results on Optimizing Rooted Triplets Consistency. *Discrete Applied Mathematics*, Vol. 158, No. 11, pp. 1136–1147, Elsevier B.V., 2010.
- J18) J. C. Clemente, J. Jansson, and G. Valiente. Flexible taxonomic assignment of ambiguous sequencing reads. *BMC Bioinformatics*, Vol. 12, Article 8, BioMed Central Ltd., 2011.
- J19) J. Jansson and Z. Peng. Algorithms for Finding a Most Similar Subforest. *Theory of Computing Systems*, Vol. 48, No. 4, pp. 865–887, Springer Science+Business Media, LLC., 2011.
- J20) Y. Asahiro, J. Jansson, E. Miyano, H. Ono, and K. Zenmyo. Approximation Algorithms for the Graph Orientation Minimizing the Maximum Weighted Outdegree. *Journal of Combinatorial Optimization*, Vol. 22, No. 1, pp. 78–96, Springer Science+Business Media, LLC., 2011.

- J21) Y. Asahiro, J. Jansson, E. Miyano, and H. Ono. Graph Orientation to Maximize the Minimum Weighted Outdegree. *International Journal of Foundations of Computer Science*, Vol. 22, No. 3, pp. 583–601, World Scientific Publishing Co., 2011. (Special issue containing selected papers from the Eleventh Workshop on Advances in Parallel and Distributed Computational Models (APDCM 2009).)
- J22) S. Guillemot, J. Jansson, and W.-K. Sung. Computing a Smallest Multilabeled Phylogenetic Tree from Rooted Triplets. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, Vol. 8, No. 4, pp. 1141–1147, Institute of Electrical and Electronics Engineers (IEEE), 2011.
- J23) D. Alonso-Aleman, J. C. Clemente, J. Jansson, and G. Valiente. Taxonomic Assignment in Metagenomics with TANGO. *EMBnet.journal*, Vol. 17, No. 2, pp. 16–20, EMBnet, 2011.
- J24) A. Czumaj, J. Czyzowicz, L. Gąsieniec, J. Jansson, A. Lingas, and P. Zylinski. Approximation Algorithms for Buy-at-Bulk Geometric Network Design. *International Journal of Foundations of Computer Science*, Vol. 22, No. 8, pp. 1949–1969, World Scientific Publishing Co., 2011.
- J25) J. Jansson, K. Sadakane, and W.-K. Sung. Ultra-Succinct Representation of Ordered Trees with Applications. *Journal of Computer and System Sciences*, Vol. 78, No. 2, pp. 619–631, Elsevier Inc., 2012.
- J26) J. Jansson, R. S. Lemence, and A. Lingas. The Complexity of Inferring a Minimally Resolved Phylogenetic Supertree. *SIAM Journal on Computing*, Vol. 41, No. 1, pp. 272–291, Society for Industrial and Applied Mathematics (SIAM), 2012.
- J27) T. Akutsu, D. Fukagawa, J. Jansson, and K. Sadakane. Inferring a Graph from Path Frequency. *Discrete Applied Mathematics*, Vol. 160, No. 10–11, pp. 1416–1428, Elsevier B.V., 2012.
- J28) J. Czyzowicz, S. Dobrev, L. Gąsieniec, D. Ilcinkas, J. Jansson, R. Klasing, I. Lignos, R. Martin, K. Sadakane, and W.-K. Sung. More Efficient Periodic Traversal in Anonymous Undirected Graphs. *Theoretical Computer Science*, Vol. 444, pp. 60–76, Elsevier B.V., 2012. (Special issue containing selected papers from the Sixteenth International Colloquium on Structural Information and Communication Complexity (SIROCCO 2009).)
- J29) T. Asano, J. Jansson, K. Sadakane, R. Uehara, and G. Valiente. Faster Computation of the Robinson-Foulds Distance between Phylogenetic Networks. *Information Sciences*, Vol. 197, pp. 77–90, Elsevier B.V., 2012.
- J30) Y. Cui, J. Jansson, and W.-K. Sung. Polynomial-Time Algorithms for Building a Consensus MUL-Tree. *Journal of Computational Biology*, Vol. 19, No. 9, pp. 1073–1088, Mary Ann Liebert, Inc. publishers, 2012.
- J31) J. Jansson and W.-K. Sung. Constructing the R^* Consensus Tree of Two Trees in Subcubic Time. *Algorithmica*, Vol. 66, No. 2, pp. 329–345, Springer Science+Business Media, LLC., 2013.

- J32) H. H. Do, J. Jansson, K. Sadakane, and W.-K. Sung. Fast Relative Lempel-Ziv Self-Index for Similar Sequences. *Theoretical Computer Science*, Vol. 532, pp. 14–30, Elsevier B.V., 2014. (Special issue containing selected papers from the Second Joint International Conference on Frontiers in Algorithmics and Algorithmic Aspects in Information and Management (FAW-AAIM 2012).)
- J33) J. Jansson and A. Lingas. Computing the Rooted Triplet Distance between Galled Trees by Counting Triangles. *Journal of Discrete Algorithms*, Vol. 25, pp. 66–78, Elsevier B.V., 2014. (Special issue containing selected papers from the Twenty-Third Annual Symposium on Combinatorial Pattern Matching (CPM 2012).)
- J34) Y. Asahiro, J. Jansson, E. Miyano, and H. Ono. Graph Orientations Optimizing the Number of Light or Heavy Vertices. *Journal of Graph Algorithms and Applications*, Vol. 19, No. 1, pp. 441–465, 2015.
- J35) J. Jansson, K. Sadakane, and W.-K. Sung. Linked Dynamic Tries with Applications to LZ-Compression in Sublinear Time and Space. *Algorithmica*, Vol. 71, No. 4, pp. 969–988, Springer Science+Business Media New York, 2015.
- J36) T. Mori, A. Takasu, J. Jansson, J. Hwang, T. Tamura, and T. Akutsu. Similar Subtree Search Using Extended Tree Inclusion. *IEEE Transactions on Knowledge and Data Engineering*, Vol. 27, No. 12, pp. 3360–3373, Institute of Electrical and Electronics Engineers (IEEE), 2015.
- J37) Y. Asahiro, J. Jansson, E. Miyano, and H. Ono. Degree-Constrained Graph Orientation: Maximum Satisfaction and Minimum Violation. *Theory of Computing Systems*, Vol. 58, No. 1, pp. 60–93, Springer Science+Business Media New York, 2016. (Special issue containing selected papers from the Eleventh International Workshop on Approximation and Online Algorithms (WAOA 2013).)
- J38) J. Jansson, C. Shen, and W.-K. Sung. Improved Algorithms for Constructing Consensus Trees. *Journal of the ACM*, Vol. 63, No. 3, Article 28, Association for Computing Machinery (ACM), 2016.
- J39) J. Jansson, W.-K. Sung, H. Vu, and S.-M. Yiu. Faster Algorithms for Computing the R* Consensus Tree. *Algorithmica*, Vol. 76, No. 4, pp. 1224–1244, Springer Science+Business Media New York, 2016. (Special issue containing selected papers from the Twenty-Fifth International Symposium on Algorithms and Computation (ISAAC 2014).)
- J40) J. Jansson and R. Rajaby. A More Practical Algorithm for the Rooted Triplet Distance. *Journal of Computational Biology*, Vol. 24, No. 2, pp. 106–126, Mary Ann Liebert, Inc. publishers, 2017. (Special issue containing selected papers from the Second International Conference on Algorithms for Computational Biology (AlCoB 2015).)
- J41) T. Akutsu, J. Jansson, A. Takasu, and T. Tamura. On the Parameterized Complexity of Associative and Commutative Unification. *Theoretical Computer Science*, Vol. 660, pp. 57–74, Elsevier B.V., 2017.

- J42) J. Jansson, Z. Li, and W.-K. Sung. On Finding the Adams Consensus Tree. *Information and Computation*, Vol. 256, pp. 334–347, Elsevier Inc., 2017.
- J43) J. Jansson, R. Rajaby, C. Shen, and W.-K. Sung. Algorithms for the Majority Rule (+) Consensus Tree and the Frequency Difference Consensus Tree. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, Vol. 15, No. 1, pp. 15–26, Institute of Electrical and Electronics Engineers (IEEE), 2018.
- J44) P. Floderus, J. Jansson, C. Levcopoulos, A. Lingas, and D. Sledneu. 3D Rectangulations and Geometric Matrix Multiplication. *Algorithmica*, Vol. 80, No. 1, pp. 136–154, Springer Science+Business Media New York, 2018.
- J45) J. Jansson, A. Lingas, R. Rajaby, and W.-K. Sung. Determining the Consistency of Resolved Triplets and Fan Triplets. *Journal of Computational Biology*, Vol. 25, No. 7, pp. 740–754, Mary Ann Liebert, Inc. publishers, 2018. (Special issue containing selected papers from the Twenty-First Annual International Conference on Research in Computational Molecular Biology (RECOMB 2017).)
- J46) J. Jansson, R. Rajaby, and W.-K. Sung. Minimal Phylogenetic Supertrees and Local Consensus Trees. *AIMS Medical Science*, Vol. 5, No. 2, pp. 181–203, AIMS Press, 2018. (Special issue on “The Future of Informatics in Biomedicine”.)
- J47) N. Nakajima, M. Hayashida, J. Jansson, O. Maruyama, and T. Akutsu. Determining the Minimum Number of Protein-Protein Interactions Required to Support Known Protein Complexes. *PLOS ONE*, Vol. 13, No. 4, Article e0195545, Public Library of Science (PLOS), 2018.
- J48) K. Dannenberg, J. Jansson, A. Lingas, and E.-M. Lundell. The Approximability of Maximum Rooted Triplets Consistency with Fan Triplets and Forbidden Triplets. *Discrete Applied Mathematics*, Vol. 257, pp. 101–114, Elsevier B.V., 2019.
- J49) J. Jansson, R. Rajaby, and W.-K. Sung. An Efficient Algorithm for the Rooted Triplet Distance between Galled Trees. *Journal of Computational Biology*, Vol. 26, No. 9, pp. 893–907, Mary Ann Liebert, Inc. publishers, 2019. (Special issue containing selected papers from the Fourth International Conference on Algorithms for Computational Biology (AlCoB 2017).)
- J50) Y. Asahiro, J. Jansson, G. Lin, E. Miyano, H. Ono, and T. Utashima. Exact Algorithms for the Repetition-Bounded Longest Common Subsequence Problem. *Theoretical Computer Science*, Vol. 838, pp. 238–249, Elsevier B.V., 2020.
- J51) Y. Asahiro, J. Jansson, E. Miyano, H. Nikpey, and H. Ono. Graph Orientation with Splits. *Theoretical Computer Science*, Vol. 844, pp. 16–25, Elsevier B.V., 2020.
- J52) L. Gaśieniec, J. Jansson, C. Levcopoulos, A. Lingas, and M. Persson. Pushing the Online Boolean Matrix-Vector Multiplication Conjecture Off-Line and Identifying Its Easy Cases. *Journal of Computer and System Sciences*, Vol. 118, pp. 108–118, Elsevier Inc., 2021.
- J53) Y. Asahiro, J. Jansson, E. Miyano, H. Ono, and S. Thekkumpadan Puthiyaveedu. Graph Orientation with Edge Modifications. *International Journal of Foundations of Computer Science*, Vol. 32, No. 2, pp. 209–233, World Scientific Publishing Co., 2021.

- J54) J. Jansson, K. Mampentzidis, R. Rajaby, and W.-K. Sung. Computing the Rooted Triplet Distance between Phylogenetic Networks. *Algorithmica*, Vol. 83, No. 6, pp. 1786–1828, Springer Nature Switzerland AG, 2021.
- J55) T. Akutsu, J. Jansson, R. Li, A. Takasu, and T. Tamura. New and Improved Algorithms for Unordered Tree Inclusion. *Theoretical Computer Science*, Vol. 883, pp. 83–98, Elsevier B.V., 2021.
- J56) Y. Asahiro, J. Jansson, E. Miyano, and H. Ono. Upper and Lower Degree-Constrained Graph Orientation with Minimum Penalty. *Theoretical Computer Science*, Vol. 900, pp. 53–78, Elsevier B.V., 2022.
- J57) H. Y. Yuen and J. Jansson. Normalized L3-based link prediction in protein–protein interaction networks. *BMC Bioinformatics*, Vol. 24, Article 59, BioMed Central Ltd., 2023.
- J58) J. Jansson, C. Levcopoulos, and A. Lingas. Online and Approximate Network Construction from Bounded Connectivity Constraints. *International Journal of Foundations of Computer Science*, Vol. 34, No. 5, pp. 453–468, World Scientific Publishing Co., 2023.
- J59) J. Jansson, K. Mampentzidis, and S. Thekkumpadan Puthiyaveedu. Building a Small and Informative Phylogenetic Supertree. *Information and Computation*, Vol. 294, Article 105082, Elsevier Inc., 2023.

• **Refereed international conference papers**

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- **Miscellaneous (unrefereed papers, technical reports, conference posters, etc.)**
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