CV of SEOK-HEE HONG

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Current Positions

- Professor, School of IT, University of Sydney
- 2008-2012: ARC ARF (Australian Research Fellow), University of Sydney

Previous Positions

- 2009-2011: Associate Professor (*continuing position*) and Principal Research Fellow, School of IT, University of Sydney
- 2006-2008: Senior Lecturer (*continuing position*), School of IT, University of Sydney
- 2001-2005: Lecturer (*continuing position*), School of IT, University of Sydney
- 2004-2007: Project Leader of VALACON (Visualisation and Analysis of Large and Complex Networks), NICTA (National ICT Australia).
- 2000-2001: Postdoctoral Research Fellow, Basser Department of Computer Science, University of Sydney
- 1999-2000: KOSEF (Korea Science and Engineering Foundation) Postdoctoral Fellow, Department of Computer Science and Software Engineering, University of Newcastle
- 1996-1998: Part-time Lecturer, Ewha University, Korea
- 1990: Researcher, KT (Korea Telecom) R&D (Research and Development) Center, Seoul, Korea
- 1989–1990: Researcher, DACOM (Data Communications), Seoul, Korea
- 1987-1989: Research Assistant, Department of Computer Science, Ewha University, Korea.

Visiting Positions

- 2011 April/December: Visiting researcher at National Tsing Hua University, Taiwan
- 2011 March/September: Visiting researcher at University of Perugia, Italy
- 2010 November: Visiting researcher at Kyoto University, Japan
- 2009 October: Visiting researcher at University of Perugia, Italy
- 2009 November: Visiting researcher at Kyoto University, Japan
- 2009 March/April: Visiting researcher at National Taiwan University, Taiwan
- 2009 March: Visiting researcher at Kyoto University, Japan
- 2008 November: Visiting researcher at University of Perugia, Italy
- 2008 October: Visiting researcher at Kyoto University, Japan
- 2007 November: Visiting researcher at JAIST, Japan
- 2007 November/December: Visiting researcher at Kyoto University, Japan
- 2007 March: Visiting researcher at Kyoto University, Japan
- 2006 September: Visiting researcher at IPK (Institute of Plant Genetics and Crop Plant Research), Germany
- 2005 March: Visiting researcher at Kyoto University, Japan

- 2004 April/May: Visiting researcher at IPK (Institute of Plant Genetics and Crop Plant Research), Germany
- 2004 February: Visiting researcher at University of Ottawa, Canada
- 2004 February: Visiting researcher at University of Lethbridge, Canada
- 2004 February: Visiting researcher at University of Victoria, Canada
- 2003 January: Visiting researcher at JAIST, Japan
- 1998 July/August: Visiting researcher, University of Limerick, Ireland.
- 1997-1998: Visiting researcher, University of Newcastle, Australia.

Academic Qualification

- PhD. Department of Computer Science and Engineering, Ewha University, Korea, 1999.
- MSc. Department of Computer Science, Ewha University, Korea, 1989.
- BSc. Department of Computer Science, Ewha University, Korea, 1987.

National Awards

- **2006 CORE Chris Wallace Award for Outstanding Research Contribution in the field of Computer Science** (for my research contribution in "**Theory and Practice of Graph Drawing**"): The prize was awarded to an academic for post-PhD research undertaken within a university or research institution in Australia or New Zealand in the calendar years 2002-2004. The research should include a **notable breakthrough or a contribution of particular significance.** The Computing Research and Education Association of Australasia, CORE, is an association of university departments of computer science in Australia and New Zealand.
- 2000 KOFST Best Science & Technology Paper Award: Awarded by KOFST (The Korean Federation of Science & Technology Societies). This award was for the best paper in the journal of KISS (Korea Information Science Society; this is the professional organization in Korea for those in Information Technology.)

International Awards/Prizes

- 1st place, 2006 Graph Drawing Competition (Theory Graph Category)
- 1st place, 2006 Graph Drawing Competition (History of World Cup Category)
- 1st place, 2005 Graph Drawing Competition (Evolution Network Category)

Fellowships

- **2008-2012 ARC ARF (Australian Research Fellow) Fellowship**
- 1999-2000 KOSEF (Korea Science and Engineering Foundation) Postdoctoral Fellowship
- 1997-1998 Ewha Graduate School Research Fellowship, Ewha University.

Recent Research Grants: Total research income $2,760,000

- 2011-2013: **ARC Linkage Grant**, "LP-110100519: Visual Interaction Methods for Clustered Graphs", **$340,000, second CI.**
- 2009-2011: **ARC Discovery Grant,** "DP0988838: Scalable Visual Analytics for Uncertain Dynamic Networks", **$263,000, second CI.**
- 2008-2012: **ARC Discovery Grant,** "DP0881706: Algorithmics for Interactive 2.5D Graph Drawing", **$304,322, A+ (top 30% of successful grants), Sole CI.**
- 2004-2007: **NICTA VALACON** (Visualisation and Analysis of Large and Complex Networks) project, **Project Leader, $1,500,000.**

- 2005-2007: **ARC Discovery Grant,** "DP0560045: Topological Approaches for Three Dimensional Graph Drawing", **$160,000, first CI.**
- 2004-2007: **ARC Linkage Grant**, "LP-455334: New Methods for Interactive Visualisation of Large Microarray Data Sets", **$70,668, second CI.**
- EII (Enterprise Information Infrastructure) ARC Research Network, Task Force on Network Analysis and Visualisation, 2005-2007, **$34,000, Main Coordinator**.

Other Successful Funding

- 2012-2013: University of Sydney, International Program Development Fund (Collaboration with Seoul National University, Tohoku University, Fudan University, National Taiwan University on "Scalable Algorithms for Massive Complex Data Analysis"): **$24,000**.
- 2010-2011: University of Sydney, International Program Development Fund (Collaboration with Kyoto University, Japan on "Graph Algorithm"): **$20,000**.
- 2004: Research grant, "Visualisation of WebGraphs", School of IT, University of Sydney, sole *CI*, **$10,000**.
- 2003: SESQUI grant, "Visualisation in Bioinformatics", University of Sydney, sole *CI*, **$18,000**.

Travel Fundings ($40,000): My international travel has been generously supported by various funding agencies from Germany, Italy, Japan, Taiwan, Canada, and Korea. This include funding from various universities including MPI, IPK and Karlsruhe Institute of Technology (Germany), University of Perugia (Italy), University of Victoria and University of Lethbridge (Canada), Tohoku University, Kyoto University and JAIST (JAPAN), National Taiwan University (Taiwan), and Seoul National University, KAIST, Postech, KOFST and Ewha University (KOREA).

Other Research Projects

- 2001-2003 ARC Large Grant "Symmetric Graph Drawing" (CI: Peter Eades): I was the main researcher of this project.
- 1999–2000 KOSEF Fellowship "Algorithms for Symmetric Drawings of Graphs": I was the sole investigator on this project.
- 1997–1998 "Geometric Symmetry of Graphs and Their Drawing Algorithms" supported by KOSEF (Korea Science and Engineering Foundation): I was a senior team member in this project.
- 1994–1997 "Graph Embedding, Drawing and their Applications to Algorithm Animation", supported by KOSEF (Korea Science and Engineering Foundation): I was a senior team member in this project.

Research Interests

- **Graph Drawing**
- Algorithms
- Information Visualisation
- Visual Analytics
- Computational Geometry
- Social Network Analysis
- Bioinformatics
- Theory of Computation
- Combinatorial Optimisation

- Geometric Graph Theory

Research

Research Leadership

I have proven my **outstanding research leadership** in the research area of Information Visualisation and Graph Drawing. As the project leader and principle researcher of the NICTA VALACON (Visualisation and Analysis of Large and Complex Networks) project 2004-2007, I led a **research team of 15 people** (3 postdoctoral researchers, 2 research engineers and 10 PhD students).

My leadership duties included:

- Setting research directions/agenda and specific goals/milestones/deliverables
- Hiring/supervising/mentoring researchers, engineers and students
- Engaging with *commercial customers*
- Establishing *inter-disciplinary collaboration* with biologists and sociologists

The VALACON project achieved research excellence, publishing more than 100 research publications in high quality journals and conferences, 30 conference poster papers and Technical reports, 10 PhD Theses, and a visual analytic tool **GEOMI**.
The research excellence of VALACON project was acknowledged internationally; we won 5 awards and prizes at the international competitions.
For details on the VALACON project, see **http://www.cs.usyd.edu.au/~visual/valacon/.**

Research Staff Supervision

I have supervised **7 postdoctoral researchers (level B)** at the University of Sydney and NICTA:

- Dr. Tony Huang, 2007-2008, 2009-2010 USYD (now Senior Researcher at CSIRO).
- Dr. Wu Quan: 2007-2008, USYD (now Research Associate at USYD).
- Dr. Kai Xu: 2004-2007, NICTA (now Senior Lecturer at Middlesex University, UK).
- Dr. Richard Webber, 2005-2006, NICTA (now University of Ballarat).
- Dr. Michale Forster 2005, NICTA (now Google, Germany).
- Dr. Nikola Nikolov, 2004-2005, NICTA (now Lecturer at University of Limerick, Ireland).
- Dr. Tim Dwyer, 2004, NICTA (now Microsoft US).

I have supervised **9 research engineers** and **research associates** at the University of Sydney and NICTA:

- Hui Liu: 2010-2011, USYD
- Xiaoyan Fu: 2004-2007, NICTA.
- Nicolas Senechal, 2005-2006, NICTA.
- Martin Mader, 2006-2007, NICTA (now PhD student at University of Konstanz, Germany).
- Adel Ahmed, 2006, USYD (now Head of School and Assistant professor at King Fahd University of Petroleum and Minerals, Saudi Arabia).
- Hoang Quan Nguyen, 2006, USYD (now PhD student at USYD).

- Dougal Kan, 2004-2005, USYD (now PhD student at UTS).
- Tom Murtagh, 2003-2004, USYD (now system engineer at University of Sydney).
- David Abelson, 2001-2002, USYD (now student at USYD).

Research Student Supervision

I have been a **main supervisor/co-supervisor/associate supervisor** of **PhD students** at the School of IT, University of Sydney:

- Hoang Quan Nguyen, CMCRC Scholarship, PhD expected 2013.
- Nicholas Jefferson, PhD expected 2013.
- Hui Liu, MPhil 2011.
- David Fung, APAI PhD Scholarship, PhD 2010 (now Postdoctoral at UNSW).
- Colin Murray, NICTA PhD scholarship, PhD 2010.
- Adel Ahmed, NICTA PhD scholarship, PhD 2009 (now Assistant professor at King Fahd University of Petroleum and Minerals, Saudi Arabia)
- Tony Huang, NICTA PhD scholarship, PhD 2008 (now Senior Researcher at CSIRO).
- Lanbo Zheng, NICTA PhD scholarship, PhD 2008 (now Postdoctoral at University of Newcastle).
- Robert Shen, CMCRC PhD scholarship, PhD 2006 (now Research Associate at University of Melbourne).
- Tim Dwyer, CMCRC PhD scholarship, PhD 2005 (now Microsoft US).

I have supervised **PhD students** at the School of IT, University of Sydney under NICTA VALACON Project:

- Christine Wu, NICTA PhD scholarship, PhD 2008.
- Le Song, NICTA PhD scholarship, thesis PhD 2008 (now postdoctoral at CMU, US).
- Damian Merrick, NICTA PhD scholarship, PhD 2008.

Past Research Supervision

I have been an **associate supervisor** of PhD students at the School of IT, University of Sydney:

- Carsten Friedrich, PhD, 2002 (**Winner of Most Distinguished PhD Thesis,** now senior engineer at CSIRO)
- Keith Nesbitt, PhD, 2003 (now Senior lecturer at University of Newcastle)
- Hugo do Nascimento, PhD, 2003 (now Assistant professor in Brasil)
- Jenny Liu, PhD, 2004 (now Senior Researcher at PNNL in the USA)

I have supervised **visiting Master/PhD students from overseas**:

- Salvatore Romeo, PhD student, Perugia, Italy, 2011.
- Sebatian Janowski, PhD student, Germany, 2010-2011.
- Mahdie Hasheminejad, PhD student, Iran, 2007-2008.
- Martin Mader, Master student, Konstanz, Germany, 2006-2007 (now PhD student at University of Konstanz).
- Sander Ketlaar, Master student, Amsterdam, Netherlands, 2005-2006.
- Hedi Buchhner, Master student, Passau, Germany, 2005-2006.
- Luca Grilli, PhD student, Perugia, Italy, 2006 (now Assistant professor at University of Perugia, Italy).
- Victor Pascal, PhD student, Barcelona, Spain, 2006.

I have been a **main supervisor of Honour students** at the School of IT, University of Sydney:

- Savrina Carrizo, 2003, first class honours (highest thesis mark 92), the winner of **Allan Bromley prize for best honours thesis** 2004, funded by SESQUI New Staff grant honours scholarship (now PhD student at University of Cambridge) .
- Dougal Kan, 2003, first class honours (now PhD student at UTS)
- Lie Ming Tang, 2002, first class honours
- David Abelson, 2001, first class honours (thesis mark 91) (now student at USYD)

I have been a main supervisor of **Vacation scholarship students** at the University of Sydney:

- Hoang Quan Nguyen, USYD vacation scholarship, 2009-2010 (now PhD student at USYD).
- Joshua Ho, NICTA vacation scholarship, 2004-2005, 2006-2007 (now Postdoctoral at Havard University).
- Thomas Chung, USYD vacation scholarship, 2006-2007 (now Research Associate at USYD).
- Tristan Manwaring, NICTA vacation scholarship, 2005-2006.
- Hoang Quan Nguyen, NICTA vacation scholarship, 2005-2006.
- Viet H. Le, NICTA vacation scholarship, 2003-2004 , 2004-2005.
- Tom Murtagh, USYD, NICTA vacation scholarship, 2003-2004, 2002-2003, 2001-2002 (now Software developer at USYD).

I have co-supervised **Masters students** at the Department of Computer Science, Ewha University, Korea:

- Young-Ran Lee, MSc, 1999
- Yun-Hee Lee, MSc, 1998
- Hye-Ryon Park, MSc, 1997
- Eun-Sook Oh, MSc, 1996
- Yun-Hee Cho, MSc, 1995

Research Collaborators in Australia

- Professor Peter Eades, School of IT, University of Sydney
- Professor Brendan McKay, Department of Computer Science, Australian National University
- Professor Bruce Thomas, University of South Adelaide
- Associate Professor, Don Taylor, School of Math and Statistics, University of Sydney
- Associate Professor, Jonathan Hillman, School of Math and Statistics, University of Sydney

International Research Collaborators

- Professor Takao Nishizeki, Tohoku University, Japan.
- Professor Naoki Katoh, Kyoto University, Japan.
- Professor Kazuo Iwama, Kyoto University, Japan.
- Professor Hiroshi Nagamochi, Kyoto University, Japan.
- Professor Kozo Sugiyama, JAIST, Japan.
- Professor Takeshi Tokuyama, Tohoku University, Japan.
- Professor Dr. Christoph Buchheim, University of Cologne, Germany.
- Professor Dr. Christian Bachmeier, University of Passau, Germany.

- Professor Dr. Petra Mutzel, University of Dortmund, Germany.
- Professor Dr. Michael Kauffman, University of Tubingen, Germany.
- Professor Dr. Ulrik Brandes, University of Konstanz, Germany.
- Professor Guiseppe Di Battista, University of Rome III, Italy.
- Professor Guiseppe Liotta, University of Perugia, Italy.
- Professor Antonis Symvonis, National Technical University of Athens, Greece.
- Associate Professor Stephen Kobourov, University of Arizona, USA.
- Professor Dr. Falk Schreiber, Network Analysis Group, Bioinformatics Center, The Institute of Plant Genetics and Crop Plant Research (IPK), Germany.
- Professor Stephen Wismath, University of Lethbridge, Canada.
- Professor Vladimir Batagelj, Slovenia (Network Analysis).
- Professor Kunsoo Park, Seoul National University, Korea.
- Professor Sangho Lee, Ewha University, Korea.
- Professor Hsu-chun Yen, National Taiwan University, Taiwan.
- Professor Rudolf Fleischer, Fudan University, China.

Multi-Disciplinary Research Collaborators

- Associate Professor, Don Taylor (Math and Statistics), University of Sydney
- Associate Professor, Jonathan Hillman (Math and Statistics), University of Sydney
- Professor Kozo Sugiyama, (Knowledge Science) JAIST, Japan.
- Professor Dr. Falk Schreiber, Network Analysis Group, (Bioinformatics), The Institute of Plant Genetics and Crop Plant Research (IPK), Germany
- Professor Vladimir Batagelj, Slovenia (Social Network Analysis)
- Professor Pip Pattison, University of Melbourne (Sociology)
- Associate Professor Garry Robins, University of Melbourne (Sociology)
- Professor Peter Little, UNSW (Biology)
- Professor Marc Wilkins, UNSW (Biology)
- Dr. Rohan Williams, ANU (Biology)

Industrial Collaborators and Commercialisation

- Dr David Hart, Axogenics, Sydney (Biotech Company)
- Dean van Gerrevink, Daintree Networks, Melbourne (Sensor network company)
- CYRAM, Korea (Social network analysis)
- Tomsawyer Software (graph visualisation company, USA)

Research Prototype Software

I have designed and developed an open-source, research prototype software **GEOMI (Geometry for Maximum Insight)** as a part of NICTA VALACON project. GEOMI is a visual analytic tool for providing effective and efficient analysis and visualisations for biological networks and social networks.

GEOMI is currently used by a number of biologists (UNSW and ANU) and sociologists (Uni Menlbourne) for network analysis and visualisation of large and complex network data. GEOMI is freely available from **http://www.cs.usyd.edu.au/~visual/valacon/geomi/.**

Movies

I have produced the following movies as collaboration with researchers and students (available from http://www.cs.usyd.edu.au/~shhong):

- 3DTreeDraw Video
- NICTA VALACON Project Demo Video

- IEEE InfoVis 2004 Competition Winning Entry Video
- GD2005 Competition Winning Entry Video
- GD 2006 Competition Winning Entry Video

Gallery/Pictures

I have produced the following picture galleries as collaboration with researchers and students (available from http://www.cs.usyd.edu.au/~shhong):

- PolyPlane: 2.5D Tree Drawing
- 3D Symmetric Graph Drawing: Trees, SP Digraphs, Planar Graphs and General Graphs
- 2.5D Graph Drawings: Scale-free networks, Hierarchical Networks, Clustered Graphs

Exhibition

My visualizations are often interpreted by the general community as **art**. In 2008, I was a **major contributor to the art exhibition** "***Visual Connections***" at the University of Sydney, showcasing 8 of my works.

Teaching

- 2002-2011: School of IT, University of Sydney (as main lecturer and coordinator)
  1. 2011, 2nd semester, **COMP5048 Information Visualisation**
  2. 2010, 2nd semester, COMP5048 Information Visualisation
  3. 2009, 2nd semester: COMP5048 Information Visualisation
  4. 2008, 2nd semester: COMP4048 Information Visualisation
  5. 2007, 2nd semester: COMP4048 Information Visualisation
  6. 2006, 2nd semester: COMP4048 Information Visualisation
  7. 2005, 2nd semester: COMP4048 Information Visualisation
  8. 2004, 2nd semester: COMP4048 Information Visualisation
  9. 2003, 2nd semester**: COMP5311Computational Geometry**
  10. 2003, 2nd semester: **COMP4301 Advanced Algorithms**
  11. 2003, 2nd semester: **COMP3200 Software Development Projects**
  12. 2003, 1st semester**: COMP3111/3811 Algorithms 2**
  13. 2003, 1st semester: COMP5311 Computational Geometry
  14. 2003, 1st semester: COMP4301 Advanced Algorithms
  15. 2002, 2nd semester**: COMP3001/3901 Algorithms**
  16. 2002, 2nd semester: COMP3201 Algorithm Systems Projects
  17. 2002 1st semester: COMP4404 Information Visualisation

- 1996–1998 (Part-time Lecturer): Department of Computer Science and Engineering, Ewha University, Korea. My duties included full responsibility for the following courses:
  1. 1998, 2nd semester: Symbolic Programming Language: LISP.
  2. 1997, 1st semester: Object Oriented Programming Language: C++.
  3. 1997, 1st semester: Introduction to Computers and the Internet.
  4. 1996, 2nd semester: Introduction to Programming.
  5. 1996, 1st semester: Programming Language: Fortran.

Publication

Edited books/proceedings:

1. S. Hong, H. Nagamochi and T. Fukunaga, Proceedings of **ISAAC 2008** (International Symposium on Algorithms and Computation), Lecture Notes in Computer Science, Springer, 2008.
2. S. Hong, T. Nishizeki and W. Quan, Proceedings of **GD 2007** (International Symposium on Graph Drawing), Lecture Notes in Computer Science, Springer, 4875, 2008.
3. S. Hong and K. Ma, Proceedings of **APVIS 2007** (Asia Pacific Symposium on Visualisation), IEEE, 2007.
4. S. Hong, Proceedings of **APVIS 2005** (Asia Pacific Symposium on Information Visualisation), Vol. 45, CRPIT, 2005.
5. S. Hong, Proceedings of **AWOCA 2004** (Australasian Workshop on Combinatorial Algorithms), 2004.

Guest Editorial (journal):

1. S. Hong and H. Nagamochi, Guest editor, **Algorithmica**, Special Issue from ISAAC 2008, Algorithmica 61(4), 2011.
2. S. Hong and H. Nagamochi, Guest editor, **IJCGA** (International Journal on Computational Geometry and Applications), Special Issue from ISAAC 2008, World Scientific, 21(3), 2011.
3. S. Hong and T. Nishizeki, Guest editor, **JGAA** (Journal of Graph Algorithms and Applications), Special Issue from GD 2007, 13(3), 2009.
4. S. Hong, Guest editor, **JGAA** (Journal of Graph Algorithms and Applications), Issue from APVIS 2007, 12(3), 2008.
5. S. Hong and H-C. Yen, Guest editor, **IJFCS** (International Journal of Foundations of Computer Science), Special issue on Graph Drawing, 17(5), 2006.

Book Chapters

1. S. Hong, “Graph Algorithms in Network Analysis”, **Encyclopedia on Systems Biology**, Springer, submitted.
2. P. Eades and S. Hong, “How to Draw Graphs: revisited”, **State of the Art in Computer Graphics, Visualization and Visual Analytics**, J. Dill, R.A. Earnshaw, D. J. Kasik, J.A. Vince, P.C. Wong, Guest Editors, Springer, submitted.
3. P. Eades and S. Hong, “Chapter 5: Detection and Display of Symmetries”, **Handbook of Graph Drawing and Visualisation**, R. Tamassia (editor), CRC Press, to appear.
4. A. Ahmed, X. Fu, S. Hong, Q. Nguyen and K. Xu, "Visual Analysis of History of World Cup: A Dynamic Network with Dynamic Hierarchy and Geographic Clustering", **Visual Information Communication** (Proceedings of **VINCI**'09), Springer, pp. 25-39, 2010.
5. P. Eades, C. Gutwenger, S. Hong and P. Mutzel, "Graph Drawing Algorithms", Chapter 9 of the **Handbook on Algorithms and Theory of Computation** (Ed. M. Atallah), CRC Press, 2009.
6. P. Eades, S. Hong, K. Nesbitt and M. Takatsuka, “Visualization”, Chapter 20 of **Handbook of Innovative Computing**, A. Zomaya et al. (editor), Springer Verlag, pp. 633-655, 2005.
7. P. Eades and S. Hong, “Chapter 46: Drawing Graphs”, **Handbook of Data Structures and Applications**, D. Mehta and S. Sahni (editors), 46:1-22, CRC Press, 2004.

Journal Article

1. D. Fung, S.Li, A. Goel, S. Hong and M. Wilkins, “Visualization of the Interactome: what are we looking at?”, Proteomics, to appear.

2. W. Didimo, E. di Giacomo, P. Eades, S. Hong and G. Liotta, “Bounds on the Crossing Resolution of Complete Geometric Graphs”, ***Discrete Applied Mathematics***, 160 (1-2), pp. 132-139, 2012.
3. S. Hong and H. Nagamochi, “A Linear Time Algorithm for Constructing a Star-shaped Drawing of Planar Graphs with the Minimum Number of Concave Corners”, ***Algorithmica,*** 62(3-4), pp. 1122-1158, 2012**.**
4. S. Hong and H. Nagamochi, “Extending Steinitz's Theorem to Upward Star-Shaped Polyhedra and Spherical PolyhedraGraph-theoretic Characterization of Non-convex Polyhedra”, ***Algorithmica***, Volume 61, Number 4, pp. 1022-1076, 2011**.**
5. U. Brandes, C. Erten, A. Estrella-Balderrama, J. Fowler, F. Frati, M. Geyer, C. Gutwenger, S. Hong, M. Kaufmann, S. Kobourov, G. Liotta, P. Mutzel, A. Symvonis, “Colored Simultaneous Geometric Embeddings and Universal Pointsets”, ***Algorithmica***, Springer, Volume 60, Number 3, pp. 569-592, 2011.
6. D. Fung, M. Wilkins, D. Hart and S. Hong, "Using the Clustered Circular Layout as an Informative Method for Visualizing Protein-protein Interaction Networks", ***Proteomics***, Volume 10, Issue 14, No. 14, July 2010, pp. 2723-2727, 2010.
7. S. Hong and H. Nagamochi, “Approximation Algorithms for Crossing Minimisation in Radial Layouts”, ***Algorithmica,*** Springer, Volume 58, Number 2, pp. 478-497, 2010.
8. S. Hong and H. Nagamochi, “Linear time algorithm for Symmetric Convex Drawings of Planar Graphs”, to appear ***Algorithmica,*** Springer, Volume 58, Number 2, pp. 433-460, 2010.
9. S. Hong and H. Nagamochi, “Convex Drawings of Hierarchical Planar Graphs and Clustered Planar Graphs”, ***Journal of Discrete Algorithm*****,** Elsevier, 8(3), pp. 282-295, 2010.
10. L. Grilli, S. Hong, G. Liotta, H. Meijer and S. Wismath, “Matched Drawability of Graph Pairs and of Graph Triples”, ***Computational Geometry: Theory and Applications,*** Volume 43, Issues 6-7, August 2010, pp. 611-634, 2010, Elsevier.
11. S. Hong and H. Nagamochi, “An Algorithm for Constructing Star-shaped Drawing of Planar Graphs”, ***Computational Geometry: Theory and Applications***, Volume 43, Issue 2, February 2010, pp. 191-206, 2010, Elsevier.
12. C. Bachmaier, H. Buchner, M. Forster and S. Hong, “Crossing minimization in Extended Level Drawings of Graphs”, ***Discrete Applied Mathematics***, 158(3), pp. 159-179, 2010, Elsevier.
13. S. Hong and H. Nagamochi, “New Approximation to the Radial Crossing Minimisation”, ***Journal of Graph Algorithms and Applications,*** Vol. 13, no. 2, 179-196, 2009.
14. W. Huang, S. Hong and P. Eades, “Measuring Effectiveness of Graph Visualizations: A Cognitive Load Perspective”, ***Information Visualisation***, *Vol. 8, Issue 3,* 139-152, 2009.
15. X. Shen, A. Vande Moere, P. Eades and S. Hong, “Issues for the Evaluation of Ambient Displays”, ***IJACI (International Journal of Ambient Computing and Intelligence),*** Vol 1, Issue 2, 2009.
16. D. Fung, S. Hong, D. Koschützki, F. Schreiber and K. Xu, “2.5D Visualisation of Overlapping Biological Networks”, ***Journal of Integrative Bioinformatics***, 5(1), 2008.
17. S. Hong and H. Nagamochi, “Convex Drawings of Graphs with Non-convex Boundary Constraints", ***Discrete Applied Mathematics***, 156(12), pp. 2368-2380, Elsevier, 2008.
18. C. Buchheim and S. Hong, “Testing Planarity of Symmetries in Linear Time”, ***Algorithmica***, 52(4), pp. 448-465, Springer, 2008.
19. S. Hong, N. Nikolov, and A. Tarassov, “A 2.5D Hierarchical Drawing of Directed Graphs”, ***Journal of Graph Algorithms and Applications***, Vol. 11, no. 2, pp. 371-396, 2007.
20. W. Huang S. Hong and P. Eades, “Effects of Sociogram Drawing Conventions and Edge Crossings in Social Network Visualization”, ***Journal of Graph Algorithms and Applications***, Vol. 11, no. 2, pp. 397-429, 2007.

21. D. Abelson, S. Hong and D. E. Taylor, “Geometric Automorphism Groups of Graphs”, ***Discrete Applied Mathematics****,* 155(17), pp. 2211-2226, 2007, Elsevier.
22. S. Hong, B. McKay and P. Eades, “A Linear Time Algorithm for Constructing Maximally Symmetric Straight-line Drawings of Triconnected Planar Graphs”, ***Discrete and Computational Geometry***, 36 (2), pp. 283-311, 2006, Springer.
23. S. Hong, D. Merrick and H. Nascimento, “*The Metro Map Layout Problem”*, ***Journal of Visual Language and Computing****,* 17(3), pp. 203-224, 2006, Elsevier.
24. S. Hong and P. Eades, “Drawing Planar Graphs Symmetrically III: Oneconnected Graphs”, ***Algorithmica****, 44* (1), pp. 67-100, 2006, Springer.
25. S. Hong and P. Eades, “Drawing Planar Graphs Symmetrically II: Biconnected Graphs”, ***Algorithmica***, 42(2), pp. 159-197, 2005, Springer.
26. C. Buchheim and S. Hong, “Crossing Minimization for Symmetries”, ***Theory of Computing Systems****,* 38 (3), pp. 293-311, 2005 (*Invited paper from ISAAC 2002)*, Springer.
27. S. Hong, P. Eades and J. Hillman, “Linkless Symmetric Drawings of Series Parallel Digraphs”, ***Computational Geometry: Theory and Applications***, 29(3), pp. 191-222, 2004, Elsevier.
28. S. Hong and P. Eades, “Drawing Trees Symmetrically in Three Dimensions”, ***Algorithmica***, 36(2), pp. 153-178, 2003, Springer.
29. S. Hong, P. Eades and S. Lee, “Drawing Series Parallel Digraphs Symmetrically”, ***Computational Geometry: Theory and Applications****,* Vol. 17, pp. 165-188, 2000, Elsevier.
30. Y. Lee, S. Hong and S. Lee, “Symmetry Analysis on Interconnection Networks and its Drawing System”, *Journal of Korea Information Science Society (A),* Vol 26, No. 11, 1999.
31. S. Hong and S. Lee, “An Algorithm for Detecting Geometric Symmetry in a Planar Graph”, *Journal of Korea Information Science Society (A),* Vol 26, No. 1, 1999.
32. H. Park, S. Hong and S. Lee, “Algorithms for Detecting the Geometric Symmetry of a Series-Parallel Digraph and its Drawing”, *Journal of Korea Information Science and Society (A),* Vol 25, No 5, pp. 481-491, 1998.
33. M. Cho, S. Hong, J. Lee and S. Lee, “Algorithms for Drawing 6-Planar Graphs in Triangular Grids”, *Journal of Korea Information Science Society (A),* Vol 24, No 2, 1997.
34. E. Oh, S. Hong and S. Lee, “Algorithms for Embedding Mesh of Trees into Star Graphs*,” Journal of Korea Information Science Society (A),* Vol 23, No 8, 1996.

Submitted Journal Papers

1. S. Hong and H. Nagamochi, “Star-shaped Drawings of Plane Graphs with a Cost Function on Concave Corners”, revision submitted.
2. W. Huang, P. Eades, S. Hong and C. Lin, “Improving Multiple Aesthetics Produces Better Graph Drawings”**, *Journal of Visual Languages and Computing***, revision submitted.

Refereed International Conference papers

1. Q. Nguyen, S. Hong and P. Eades, **“**TGI-EB: A New Framework for Edge Bundling integrating Topology, Geometry and Importance”, Proceedings of **Graph Drawing 2011**, LNCS, Springer, pp. 123-135, 2012.
2. A. Lubiw, M. Kaufmann, S. Hong, G. Liotta, Giuseppe, W. Didimo, F. Frati, G. Di Battista, “Large Angle Crossing Drawings of Planar Graphs in Subquadratic Area”, Proceedings of XIV **Spanish Meeting on Computational Geometry 2011**, to appear.

3. S. Janowski, B. Kormeier, K. Hippe, Q. Nguyen, S. Hong, Seok-Hee; R. Hofestädt, J. Stoye, B. Kaltschmidt and C. Kaltschmidt, “Reconstruction and analysis of biological networks based on large scale data from the NF-κB pathway”, Proceedings of **IB 2011** (International Symposium on Integrative Bioinformatics 2011), to appear.
4. Q. Nguyen, P. Eades, S. Hong and W. Huang, “Large Crossing Angles in Circular Layouts”, Proceedings of **Graph Drawing 2010**, LNCS, pp. 397-399, 2011.
5. W. Huang, P. Eades, S. Hong and C. Lin, “Improving Effectiveness of Graph Drawing Algorithms by Making Compromises between Aesthetics”, Proceedings of **VL/HCC** 2010, pp. 176-183, IEEE, 2010.
6. K. Haraguchi, S. Hong and H. Nagamochi, “Effectiveness of Sample Poset Based Visual Classifier for Data Sets Conceptualized by the Number of Attributes”, Proceedings of **WAAC** 2010 (Japan-Korea Workshop on Algorithms and Computations), 2010.
7. K. Haraguchi, S. Hong and H. Nagamochi, “Multiclass Visual Classifier Based on Bipartite Graph Representation of Decision Tables”, Proceedings of Learning and Intelligent Optimization (**LION** 2010), LNCS 6073, pp. 169-183, Springer, 2010.
8. K. Xu, R. Williams, S. Hong, Q. Liu and J. Zhang, “Semi-Bipartite Graph Visualization for Gene Ontology Networks”, Proceedings of **Graph Drawing** 2009, LNCS, Springer, pp. 244-255, Springer, 2010
9. P. Eades, S. Hong and S. Poon, “On Rectilinear Drawing of Graphs”, Proceedings of **Graph Drawing** 2009, LNCS, Springer, pp. 232-243, Springer, 2010.
10. S. Hong and H. Nagamochi, “Upward Star-shaped Polyhedral Graphs”, Proceedings of International Symposium on Algorithms and Computation (**ISAAC** 2009), Lecture Notes in Computer Science, Springer, pp. 913-922, 2009.
11. K. Haraguchi, S. Hong and H. Nagamochi, "Visualization can improve multiple decision table classifiers," Proceedings of Modeling Decisions for Artificial Intelligence (**MDAI** 2009), IEEE, pp. 41-52, 2009.
12. K. Haraguchi, S. Hong and H. Nagamochi, “Bipartite Graph Representation of Multiple Decision Table Classifiers”, Proceedings of Stochastic Algorithms: Foundations and Applications (**SAGA** 2009), Lecture Notes in Computer Science 5792, pp. 46-60, Springer, 2009.
13. K. Haraguchi, S. Hong and H. Nagamochi, “Visualized Multiple Decision Table Classifiers without Discretization”, Proceedings of the 4th Korea-Japan Workshop on Operations Research in Service Science, pp. 19-28, 2009.
14. S. Hong and H. Nagamochi, “Toward Characterisation of Vertex-Edge Graphs of Three-Dimensional Nonconvex Polyhedra”, Proceedings of **JH** 2009 (Japanese-Hungarian Workshop on Discrete Mathematics and Its Applications), pp. 256-273, 2009.
15. D. Fung, S. Hong, D. Koschützki, F. Schreiber and K. Xu, “Visual Analysis of Overlapping Biological Networks”, Proceedings of International Conference on Information Visualisation (**IV** 2009), IEEE Computer Society 2009, pp. 337-342, 2009.
16. W. Huang, P. Eades and S. Hong, “A Graph Reading Behaviour: Geodesic Path Tendency”, Proceedings of IEEE Pacific Visualization Symposium (**PacificVis** 2009), IEEE, 137-144, 2009.
17. L. Grilli, S. Hong, G. Liotta, H. Meijer and S. Wismath, “Matched Drawability of Graph Pairs and of Graph Triples”, Proceedings of Workshop on Algorithms and Computation, **WALCOM** 2009, pp. 322-333, LNCS 5431, Springer, 2009.
18. S. Hong, “MultiPlane Framework for Visualisation and Analysis of Large and Complex Networks”, Proceedings of 2008 **RIMS Workshop** on Acceleration and Visualisation of Computation for Enumeration Problems, pp. 1-11, 2009.
19. K. Haraguchi, S. Hong and H. Nagamochi, “Classification by Ordering Data Samples”, Proceedings of 2008 **RIMS Workshop** on Acceleration and Visualisation of Computation for Enumeration Problems, pp. 20-34, 2009.

20. T. Imamichi, J. Gim, Y. Arahori, S. Hong and H. Nagamochi, “Removing Overlaps in Label Layouts using a Multi-sphere Scheme”, Proceedings of **Graph Drawing** 2008, pp. 296-301, LNCS, Springer 2009.
21. S Hong and M. Mader, “Generalizing the Shift Method for Rectangular Shaped Vertices with Visibility Constraints”, Proceedings of **Graph Drawing** 2008, pp. 278-283, LNCS, Springer 2009.
22. S. Hong and H. Nagamochi, “Star-shaped Drawing of Planar Graphs with Fixed Embedding and Concave Corner Constraints”, Proceedings of **COCOON** 2008**,** LNCS, Springer, pp. 405-414, 2008.
23. L. Grilli, S. Hong, A. Symvonis and C. Wormser, “Locally Delaunay Realizability of Regular Series-Parallel Graphs”, Proceedings of **CGA** (International Workshop on Computational Geometry and Applications) 2008, IEEE, pp. 461-467, 2008.
24. D. Fung, S. Hong, D. Hart, K. Xu, Visualizing the Gene Ontology-Annotated Clusters of Co-expressed Genes: A Two-Design Study, Proceedings of **IV** (Information Visualisation) 2008, IEEE, pp. 9-14, 2008.
25. S. Hong and H. Nagamochi, “Approximating Crossing Minimization in Radial Layouts”, Proceedings of **LATIN** 2008 (Latin American Theoretical Informatics Symposium), LNCS 4957, pp. 461-472, 2008.
26. W. Huang, S. Hong and P. Eades, “Effects of Crossing Angles”, Proceedings of IEEE Pacific Visualization Symposium (**PacificVis** 2008), IEEE, pp. 41-46, 2008.
27. W. Huang, S. Hong and P. Eades, “A Cognitive Approach to the Evaluation of Graph Visualizations”, Proceedings of **BELIV’**08 workshop, ACM, 3, 2008.
28. X. Shen, A. Vande Moere, P. Eades and S. Hong, “An Evaluation of *Fisherman* in a Partial-Attention Environment, Proceedings of **BELIV**’08 workshop, ACM, 10, 2008.
29. S. Hong and H. Nagamochi, “Star-shaped Drawings of Planar Graphs”, Proceedings of **IWOCA** 2007 (International Workshop on Combinatorial Algorithm), pp. 78-92, College Publications, 2008.
30. Q. Nguyen and S. Hong. “Centrality-Based Planarisation and Thickness”, Proceedings of **WAAC** 2007 (Korea-Japan Workshop on Algorithms and Computations), 2007.
31. S. Hong and H. Nagamochi, “Convex Drawings of Clustered Planar Graphs”, Proceedings of **WAAC** 2007 (Korea-Japan Workshop on Algorithms and Computations), pp. 32-39, 2007.
32. S. Hong and H. Nagamochi, “A Linear Time Algorithm for Symmetric Convex Drawings of Triconnected Planar Graphs”, Proceedings of Kyoto **CGGT** 2007 (Kyoto International Conference on Computational Geometry and Graph Theory), 2007.
33. U. Brandes, C. Erten, J. Fowler, F. Frati, M. Geyer, C. Gutwenger, S. Hong, M. Kaufmann, S. G. Kobourov, G. Liotta, P. Mutzel, A. Symvonis, “Colored Simultaneous Geometric Embeddings”, Proceedings of **COCOON** 2007 (Computing and Combinatorics), Lecture Notes in Computer Science 4598, pp. 254-263, 2007.
34. K. Xu, A. Cunningham, S. Hong and B. Thomas, “GraphScape: Integrated Multivariate Network Visualization”, Proceedings of **APVIS** (Asia-Pacific Symposium on Visualisation) 2007, IEEE, pp. 33-40, 2007.
35. A. Ahmed, V. Batagelj, X. Fu, S. Hong, D. Merrick and A. Mrvar, “Visualisation and Analysis of the Internet Movie Database”, Proceedings of **APVIS** (Asia-Pacific Symposium on Visualisation) 2007, IEEE, pp. 17-24, 2007.
36. X. Fu, S. Hong, N. S. Nikolov, X. Shen, Y. Wu and K. Xu, “Visualization and Analysis of Email Networks”, Proceedings of **APVIS** (Asia-Pacific Symposium on Visualisation) 2007, IEEE, pp.1-8, 2007.
37. A. Ahmed and S. Hong, “Navigation Techniques for 2.5D Graph Layout”, Proceedings of **APVIS** (Asia-Pacific Symposium on Visualisation) 2007, IEEE, pp. 81-84, 2007.

38. X. Shen, P. Eades, S. Hong and A. Vande Moere, "Intrusive and Non-intrusive Evaluation of Ambient Displays", Issues in the Design and Evaluation of Ambient Information Systems Workshop, Toronto, Canada, pp. 30-35, 2007
39. S. Hong, and H. Nagamochi, “Convex Drawings of Graphs with Non-convex Boundary”, Proceedings of **WG** (Workshop on Graph Algorithm) 2006, pp. 113-124, Lecture Notes in Computer Science 4271, 2006.
40. S. Hong, and H. Nagamochi, “Convex Drawings of Hierarchical Plane Graphs”, Proceedings of **AWOCA** (Australasian Workshop on Combinatorial Algorithm) 2006, 2006.
41. J. Ho, T. Manwaring, S. Hong, U. Roehm, D. Fung, K. Xu, T. Kraska and D. Hart, “PathBank: Web-Based Querying and Visualization of an Integrated Biological Pathway Database”, Proceedings of **CGIV** (Computer Graphics, Imaging and Visualization) 2006, pp. 84-89, IEEE, 2006.
42. T. Dwyer, S. Hong, D. Koschuetzki, F. Schreiber and K. Xu, “Visual Analysis of Network Centralities”, Proceedings of Asia Pacific Symposium on Information Visualisation (**APVIS** 2006), pp. 189-197, 2006.
43. W. Huang, S. Hong and P. Eades, “How People Read Sociograms: A Questionnaire Study”, Proceedings of Asia Pacific Symposium on Information Visualisation (**APVIS** 2006), pp. 199-206, 2006.
44. W. Huang, S. Hong and P. Eades, “Predicting Graph Reading Performance: A Cognitive Approach”, Proceedings of Asia Pacific Symposium on Information Visualisation (**APVIS** 2006), pp. 207-216, 2006.
45. S. Hong and N. Nikolov, “Hierarchical Layout of Directed Graphs in Three Dimensions”, Proceedings of **Graph Drawing** 2005, pp. 251-261, Lecture Notes in Computer Science 3843, 2005.
46. J. Ho and S. Hong, “Drawing Clustered Graphs in Three Dimensions”, Proceedings of **Graph Drawing** 2005, pp. 492-502, Lecture Notes in Computer Science 3843, 2005.
47. W. Huang, S. Hong and P. Eades, “Layout Effects on Sociogram Perception”, Proceedings of **Graph Drawing** 2005, pp. 262-273, Lecture Notes in Computer Science 3843, 2005.
48. Ahmed, T. Dwyer, M. Forster, X. Fu, J. Ho, S.-H. Hong, D. Koschützki, C. Murray, N. S. Nikolov, R. Taib, A. Tarassov, K. Xu, “GEOMI: GEOmetry for Maximum Insight”, Proceedings of **Graph Drawing** 2005, pp. 468-479, Lecture Notes in Computer Science 3843, 2005.
49. S. Hong, “MultiPlane: a New Framework for Drawing Graphs in Three Dimensions”, Proceedings of **Graph Drawing** 2005, pp. 514-515, Lecture Notes in Computer Science 3843, 2005.
50. S. Hong, “Network Analysis and Visualisation”, Proceedings of **Graph Drawing** 2005, pp. 524-527, Lecture Notes in Computer Science 3843, 2005.
51. W. Li, W, S. Hong and P. Eades, “Navigating Software Architecture”, Proceedings of IEEE Symposium on Visual Languages and Human-Centric Computing (**VL/HCC**'05), pp. 225-232, IEEE, 2005.
52. W. Li, S. Hong and P. Eades, “A Framework for Visualising Large Graphs”, Proceedings of International Conference Information Visualisation (**IV**05), pp. 528-535, IEEE, 2005.
53. Ahmed, T. Dwyer, S. Hong, C. Murray, L. Song and Wu, “Visualisation and Analysis of Large and Complex Scale-free Networks”, Proc. of **EuroVis** 2005 (EUROGRAPHICS-IEEE VGTC Symposium on Visualization), pp. 1–8, IEEE, 2005.
54. K. Sugiyama, R. Osawa and S. Hong, “The Puzzle Generators and Symmetric Puzzle Layout”, Proceedings of **APVIS** (Asia Pacific Symposium on Information Visualisation) 2005, pp. 93-102, Vol. 45, CRPIT, 2005.

55. S. Hong and N. Nikolov, “Layered Drawings of Directed Graphs in Three Dimensions”, Proceedings of **APVIS** (Asia Pacific Symposium on Information Visualisation) 2005, pp. 65-70, Vol. 45, CRPIT, 2005.
56. S. Hong and T. Murtagh, “*Visualization of Large and Complex Networks Using PolyPlane”*, Proceedings of **Graph Drawing** 2004, Lecture Notes in Computer Science 3383, pp. 471-482, Springer, 2004.
57. S. Hong and P. Eades, “*A Linear Time Algorithm for Constructing Maximally Symmetric Straight line Drawings of Planar Graphs”*, Proceedings of **Graph Drawing** 2004, Lecture Notes in Computer Science 3383, pp. 307-317, Springer, 2004.
58. S. Hong, D. Merrick and H. Nascimento, “*The Metro Map Layout Problem”* , Proceedings of **Graph Drawing** 2004, Lecture Notes in Computer Science 3383, Springer, pp. 482-491, 2004.
59. S. Hong, D. Merrick and H. Nascimento, “The Metro Map Layout Problem”, Proceedings of **Invis.au** (Australasian Symposium on Information Visualisation) 2004, CRPIT 35. Churcher, N. and Churcher, C., Eds., ACS. pp. 91-100, 2004.
60. S. Hong and P. Eades, “Symmetric Layout of Disconnected Graphs”, Algorithms and Computations, Proceedings of **ISAAC** 2003 (Algorithms and Computations), Lecture Notes in Computer Science, Springer, 2003, pp. 405-414, 2003.
61. K. Sugiyama, S. Hong, and A. Maeda, “The Puzzle Layout Problem”, **Graph Drawing**, Proceedings of Graph Drawing 2003, Lecture Notes in Computer Science 2912, pp. 500-501, Springer, 2003.
62. S. Hong and P. Eades, “Drawing Disconnected Graphs Symmetrically”, Proceedings of **WAAC** (Japan-Korea Workshop on Algorithms and Computation) 2003, pp. 276-288, 2003.
63. S. Hong, “The Rectilinear Crossing Minimization Problem”, Proceedings of **AWOCA** (Australasian Workshop on Combinatorial Algorithms) 2003, pp. 46-56, 2003.
64. T. Murtagh and S. Hong, “3DTreeDraw: A Three Dimensional Tree Drawing System”, Proceedings of **SoCG** (ACM Symposium on Computational Geometry) 2003, pp. 380-381, 2003.
65. D. Abelson, S. Hong and D. E. Taylor, “A Group-Theoretic Method for Drawing Graphs Symmetrically”, Proceedings of **Graph Drawing** 2002, Lecture Notes in Computer Science 2528, Springer, pp 86-97, 2002.
66. C. Buchheim and S. Hong, “Crossing Minimization for Symmetries”, Proceedings of **ISAAC**02, (Algorithms and Computations), Lecture Notes in Computer Science 2518, pp 563-574, 2002.
67. S. Hong, B. McKay and P. Eades, “Symmetric Drawings of Triconnected Planar Graphs”, Proceeding of **SODA** (ACM-SIAM conference on Discrete Algorithms) 2002, pp. 356-365, 2002.
68. S. Hong, “Drawing Graphs Symmetrically in Three Dimensions”, Proceeding of **Graph Drawing** 2001, Lecture Notes in Computer Science 2265, Springer, pp. 189-204, 2002.
69. S. Hong and P. Eades, “An Algorithm for Finding Three Dimensional Symmetry in Trees”, Proceedings of **Graph Drawing** 2000, Lecture Notes in Computer Science 1984, Springer, pp. 360-371, 2001.
70. S. Hong, “Visualisation of Symmetry in Graphs”, Proceedings of Pan-Sydney workshop on Visualisation, **VIP**, CRPIT, vol. 2, pp. 71-72, 2000
71. S. Hong and P. Eades, “An Algorithm for Finding Three Dimensional Symmetry in Series Parallel Digraphs”, Proceeding of **ISAAC** (International Symposium on Algorithms and Computations) 2000, Lecture Notes in Computer Science 1969, Springer, pp. 266-277, 2000.
72. S. Hong, P. Eades and S. Lee, “Finding Planar Geometric Automorphisms in Planar Graphs”, Proceeding of **ISAAC** (International Symposium on Algorithms and

Computations) 98, Lecture Notes in Computer Science 1533, Springer, pp. 277-286, 1998.

73. S. Hong, P. Eades, A. Quigley and S. Lee, “Drawing Algorithms for Series Parallel Digraphs in Two and Three Dimensions,” Proceedings of **Graph Drawing** 98, Lecture Notes in Computer Science 1547, Springer, pp. 196-209, 1998.
74. S. Hong and P. Eades, “An Algorithm for Finding Three Dimensional Symmetry in Trees”, Proceedings of Korea Information Science Society Spring Conference, **KISS**, 2000.
75. S. Hong and P. Eades, “How to Find Three Dimensional Symmetry in Series Parallel Digraphs”, Proceedings of Korea Information Science Society Spring Conference, **KISS**, 2000.
76. Y. Lee, S. Hong and S. Lee, “Design and Implementation of Interconnection Network System”, Proceedings of Korea Information Science Society Fall Conference, pp. 667-669, **KISS**, 1998.
77. H. Park, S. Hong, S. Lee and P. Eades, “Algorithms for Drawing Series-Parallel Digraphs Symmetrically”, Proceedings of **SoftVis** 97 Software Visualisation Workshop, Australia, 1997.
78. S. Hong and S. Lee, "The Flip Distance Problem of Triangulations," Proceedings of the Japan-Korea Joint Workshop on Algorithms and Computation, **WAAC 97**, pp.9-15, 1997.
79. H. Park, S. Hong and S. Lee, “Algorithms for Detecting the Geometric Symmetry of a Series-Parallel Digraph and Its Drawing Algorithm”, Proceedings of the Japan-Korea Joint Workshop on Algorithms and Computation, **WAAC 97**, pp.32 - 39, 1997.
80. S. Hong and S. Lee, “The Flip Distance Problem of Triangulations”, Proceedings of Korea Information Science Society Fall Conference, **KISS**, 1997.

Refereed Conference Posters/Abstracts

1. S. Hong, “Recent Advances in Straight-line Graph Drawing: Extending Fary’s Theorem, Steinitz’s Theorem and Tutte’s Barycenter Theorem”, Proceedings of **AAAC** 2011 (Asian Association for Algorithms and Computation), 2011.
2. S. Hong, N. Katoh, S. Poon and S. Tanigawa, “On the Edge Crossing Properties of Euclidean Minimum Weight Laman Graphs”, Proceedings of **AAAC** 2011 (Asian Association for Algorithms and Computation), 2011.
3. V. Batagelj, K. Borner, U. Brandes, S. Hong et al,,Sunbelt 2011 Viszards Session, "Visualization and Analysis of Airline Traffic", Proceedings of **Sunbelt** 2011, US.
4. S. Hong, “Drawing Graphs with Large Crossing Angles”, Proceedings of **AAAC** 2010 (Asian Association for Algorithms and Computation), 2010.
5. K. Haraguchi, S. Hong and H. Nagamochi, “Visual Analysis of Hierarchical Data using 2.5D Drawing with Minimum Occlusion”, IEEE Pacific Visualization Symposium 2008 (**PacificVis** 2008), March 5-7 Kyoto, Japan, 2008**. *(Best Post Award)***
6. J. Gim, Y. Arahori, T. Imamichi, S. Hong and H. Nagamochi, “Overlap Removal in Label Layouts by a Multi-sphere Scheme”, IEEE Pacific Visualization Symposium 2008 (**PacificVis** 2008), March 5-7 Kyoto, Japan, 2008.
7. V. Batagelj, K. Borner, U. Brandes, S. Hong et al,,Sunbelt 2008 Viszards Session, "Visualization and Analysis of WoS (Web of Science)", Proceedings of **Sunbelt** 2008, US.
8. A. Ahmed, X. Fu, S. Hong, Q. Nguyen,and K. Xu, "Visual Analysis of Dynamic Networks with Geological Clustering", poster, IEEE Symposium on Visual Analytics Science and Technology (**VAST**) 2007, October 2007, California USA.
9. X. Fu, S. Hong, P. Pattison and G. Robins, “Visualisation and Interaction of Temporal Multi-relational Networks, Proceedings of **Sunbelt** 2007, pp. 6, 2007.

10. Batagelj et al, Sunbelt 2007 Viszards Session, "Visualization and Analysis of Wiki", Proceedings of **Sunbelt** 2007, Greece.
11. K. Xu, R. Williams, X. Huang, C. Cotsapas, S. Hong, G. McCaughan, M. Gorrell, and P. Little, "Multi-scale Visualisation and Function Analysis of Gene Ontology Network for High Throughput Experiments", **Bioinformatics Australia** 2006, 2006.
12. D. Fung, S. Hong, K. Xu, and D. Hart, "Contextual Visualization of Microarray Data in Bioprocess Gene Ontology", **Bioinformatics Australia** 2006, 2006.
13. R. Williams, K. Xu, X. Huang, C. Cotsapas, S. Hong, G. McCaughan, M. Gorrell, and P. Little, "Visualisation and Analysis of Large and Complex Networks", 14th Annnual International Conference On Intelligent Systems For Molecular Biology (**ISMB** 2006), 2006.
14. Batagelj et al, Sunbelt 2006 Viszards Session, "Visualization and Analysis of IMDB (Internet Movie DataBase)", Proceedings of **Sunbelt** 2006, Canada.
15. X. Fu, S. Hong, N. Nikolov, X. Shen, Y. Wu, and K. Xu, "Visualization and Analysis of Small-World Email Networks", 12th IEEE Symposium on Information Visualization (**InfoVis** 2006), 2006.
16. S. Hong and T. Murtagh, “PolyPlane: An Implementation of a New Layout Algorithm for Trees in Three Dimensions”, IEEE **InfoVis** poster, 2003.
17. N. Nikolov and S. Hong, “Uniqueness Centralities”, Proceedings of **Sunbelt** 2005, pp. 102, 2005.
18. T. Dwyer, X. Fu, S. Hong N. Nikolov and K. Xu, “Visualisation and Analysis of Large and Complex Networks Using GEOMI”, Proceedings of **Sunbelt 2005**, pp. 92, 2005.

Theses

1. S. Hong, “Algorithms for Maximum Symmetry Detection and Symmetric Drawings for Planar Graphs”, Ph. D. Thesis, Ewha University, 1999.
2. S. Hong, “Rectilinear Shortest Path Problems in Rectilinear Polygons”, M.S. Thesis, Ewha University, 1987.

Technical Reports: (Available from http://www.cs.usyd.edu.au/~shhong/publication.htm/ and http://www.cs.usyd.edu.au/~visual/valacon/)

1. P. Eades, W. Huang and S. Hong, “A Force-Directed Method for Large Crossing Angle Graph Drawing”, CoRR abs/1012.4559, 2010.
2. P. Eades, W. Huang and S. Hong, “A Force-Directed Method for Large Crossing Angle Graph Drawing”. Technical Report Number 640, University of Sydney, 2009.
3. S. Hong and H. Nagamochi, “Two-page Book Embedding and Clustered Graph Planarity”, TR [2009-004], Department of Applied Mathematics and Physics, Graduate School of Informatics, University of Kyoto, Japan, 2009.
4. S. Hong and H. Nagamochi, “Testing Planarity of Level Graphs with Intra-level Edges”, TR [2009-005], Department of Applied Mathematics and Physics, Graduate School of Informatics, University of Kyoto, Japan, 2009.
5. K. Haraguchi, S. Hong and H. Nagamochi, “Visual Analysis of Hierarchical Data Using 2.5D Drawing with Minimum Occlusion”, TR [2009-010], Department of Applied Mathematics and Physics, Graduate School of Informatics, University of Kyoto, Japan, 2009.

6. K. Haraguchi, S. Hong and H. Nagamochi, “Classification via Visualization of Sample-feature Bipartite Graphs”, TR [2009-011], Department of Applied Mathematics and Physics, Graduate School of Informatics, University of Kyoto, Japan, 2009.
7. T. Imamichi, Y. Arahori, J. Gim, S. Hong and H. Nagamochi, “Removing overlaps in label layouts using multi-sphere scheme”, TR 2008-06, Department of Applied Mathematics and Physics, Graduate School of Informatics, University of Kyoto, Japan, 2008.
8. S. Hong and H. Nagamochi, “Extending Steinitz' Theorem to Non-convex Polyhedra”, TR 2008-12, Department of Applied Mathematics and Physics, Graduate School of Informatics, University of Kyoto, Japan, 2008.
9. S. Hong and H. Nagamochi, “Star-shaped Drawings of Graphs with Fixed Embedding and Concave Corner Constraints”, TR 2008-02, Department of Applied Mathematics and Physics, Graduate School of Informatics, University of Kyoto, Japan, 2008.
10. S. Hong and H. Nagamochi, "Convex Drawings with Non-convex Boundary Constraints", TR 2007-003, Department of Applied Mathematics and Physics, Graduate School of Informatics, University of Kyoto, Japan, 2007.
11. S. Hong and H. Nagamochi, "Convex Drawings of Hierarchical Planar Graphs and Clustered Planar Graphs", Department of Applied Mathematics and Physics, Graduate School of Informatics, University of Kyoto, Japan, 2007.
12. R. Webber and S. Hong, "Force-directed Animations for a Class of Dynamic Bipartite and Clustered Graphs", NICTA TR, 2007.
13. N. Senechal, S. Hong, and P. Eades, "Display of Sensor Networks", NICTA TR 2006.
14. Q. Nguyen and S. Hong, "Comparison of Centrality-Based Planarisation for 2.5D Graph Drawing", NICTA TR 2006.
15. A. Ahmed and S. Hong, "Navigation Techniques for 2.5D Graph Layout", TR, School of IT, University of Sydney, 2006.
16. C. Buchheim and S. Hong, "Testing Planarity of Geometric Automorphisms in Linear Time", ZAIK 2006-517, University of Cologne, Germany, 2006.
17. W. Huang, S. Hong, and P. Eades, "Layouts effects: Comparison of Sociogram Drawing Conventions", Technical report, USYD-IT-TR-575, Oct 2005.
18. S. Hong, "MultiPlane: a New Framework for Drawing Graphs in Three Dimensions", NICTA TR 2005.
19. C. Buchheim and S. Hong, "Crossing Minimisation for Symmetries", ZAIK 2005-484, University of Cologne, Germany, 2005.
20. S. Hong, B. McKay and P. Eades, “A Linear Time Algorithm for Constructing Maximally Symmetric Drawings of Triconnected Planar Graphs”, TR IT-IVG-2004-01, School of IT, University of Sydney, 2004.
21. S. Hong and T. Murtagh, “PolyPlane: A New Layout Algorithm For Trees In Three Dimensions”, Technical Report IT-IVG-2003-01, School of Information Technologies, The University of Sydney, 2003.
22. K. Sugiyama, S. Hong and A. Maeda, “The Puzzle Layout Problem”, TR IT-IVG-2003-02, School of Information Technologies, The University of Sydney, 2003.
23. S. Hong, D. Merrick and H. Nascimento, “The Metromap Layout Problem”, TR IT-IVG-2003-03, School of Information Technologies, The University of Sydney, 2003.
24. D. Abelson, S. Hong and D. Taylor, “A Group-Theoretic Method for Drawing Graphs Symmetrically”, Technical Report IT-IVG-2002-01, School of Information Technologies, The University of Sydney, 2002.
25. S. Hong and P. Eades, “Drawing Trees Symmetrically in Three Dimension”, Technical Report IT-IVG-2002-02, School of Information Technologies, The University of Sydney, 2002.

26. T. Murtagh and S. Hong, “3DTreeDraw: A Three Dimensional Tree Drawing System”, Technical Report IT-IVG-2002-03, School of Information Technologies, The University of Sydney, 2002.
27. S. Hong, B. McKay and P. Eades, “Drawing Planar Graphs Symmetrically I: Triconnected Planar Graphs”, Technical Report, CS-IVG-2001-00, Basser Department of Computer Science, The University of Sydney, 2001.
28. S. Hong and P. Eades, “Drawing Planar Graphs Symmetrically II: Biconnected Planar Graphs”, Technical Report CS-IVG-2001-01, Basser Department of Computer Science, The University of Sydney, 2001.
29. S. Hong and P. Eades, “Drawing Planar Graphs Symmetrically III: One-connected Planar Graphs”, Technical Report CS-IVG-2001-02, Basser Department of Computer Science, The University of Sydney, 2001.
30. S. Hong and P. Eades, “Drawing Planar Graphs Symmetrically IV: Disconnected Planar Graphs (Extended Abstract)”, Technical Report CS-IVG-2001-03, Basser Department of Computer Science, The University of Sydney, 2001.

Service To Community

Journal Editorships: Editor of **JGAA** (Journal of Graph Algorithms and Applications)

Guest Editorial:

- S. Hong and H. Nagamochi, Guest editor, **Algorithmica**, Special Issue from ISAAC 2008, Algorithmica 61(4), 2011.
- S. Hong and H. Nagamochi, Guest editor, **IJCGA** (International Journal on Computational Geometry and Applications), Special Issue from ISAAC 2008, World Scientific, 21(3), 2011.
- S. Hong and T. Nishizeki, **JGAA** (Journal of Graph Algorithms and Applications), Special issue from GD 2007 (Graph Drawing), 13(3), 2009.
- S. Hong, **JGAA** (Journal of Graph Algorithms and Applications), Special issue from APVIS 2007 (Asia Pacific Symposium on Visualisation), 12(3), 2008.
- S. Hong and H-C. Yen, **IJFCS** (International Journal of Foundations of Computer Science), Special issue on Graph Drawing, 17(5), 2006.

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- **IEEE Pacific Vis** (Pacific Visualization Symposium), 2006-
- **ISAAC** (International Symposium on Algorithms and Computation), 2011-
- **GD** (International Symposium on Graph Drawing), 2006-2008

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1. **ISAAC 2008** (International Symposium on Algorithms and Computation), Australia.
2. **GD 2007** (International Symposium on Graph Drawing), Sydney, Australia.
3. **IEEE/ACM APVIS 2007** (Asia Pacific Symposium on Visualisation), Sydney, Australia.
4. **APVIS 2005** (Asia Pacific Symposium on Information Visualisation), Sydney, Australia.
5. **AWOCA 2004** (Australasian Workshop on Combinatorial Algorithms), Byron Bay, Australia.

Program Committee

1. **ISAAC 2012** (International Symposium on Algorithms and Computation), Taipei, Taiwan.
2. **GD 2012** (International Symposium on Graph Drawing), Seattle, US.
3. **ISVC 2012** (International Symposium on Visual Computing), Crete, Greece.
4. **EuroVis 2012** (Eurographics/IEEE Symposium on Visualization), Vienna, Austria.
5. **WG 2012** (Workshop on Graph-Theoretic Algorithms), Israel.
6. **IWOCA 2012** (International Workshop on Combinatorial Algorithms), India.
7. **AAAC 2012** (Asian Association for Algorithms and Computation), China.
8. **IVAPP 2012** (International Conference on Information Visualization Theory and Application), Italy.
9. **ALENEX 2012** (Algorithm Engineering and Experiments), Japan.
10. **EuroVis 2011** (Eurographics/IEEE Symposium on Visualization), Norway.
11. **IWOCA 2011** (International Workshop on Combinatorial Algorithms), Victoria, Canada.
12. **AAAC 2011** (Asian Association for Algorithms and Computation), Hsin-chu, Taiwan.
13. **IVAPP 2011** (International Conference on Information Visualization: Theory and Applications), Spain.
14. **IEEE PacificVis 2011** (Pacific Visualization Symposium), Hong Kong.
15. **WALCOM 2011** (Workshop on Algorithms and Computations), India.
16. **ISAAC 2010** (International Symposium on Algorithms and Computation), Jeju Island, Korea.
17. **GD 2010** (International Symposium on Graph Drawing), Konstanz, Germany.
18. **IWOCA 2010** (International Workshop on Combinatorial Algorithms), London, UK.
19. **IEEE PacificVis 2010** (Pacific Visualization Symposium), Taipei, Taiwan.
20. **JCCGG 2009** (Japan Conference on Computational Geometry and Graphs), Kanazawa, Japan.
21. **FAW 2009** (International Frontiers of Algorithmics Workshop), China.
22. **AAIM 2009** (Algorithmic Aspects of Information and Management), US.
23. **IEEE Pacificvis 2009** (Pacific Visualization Symposium), Beijing, China.
24. **WAAC 2009** (Korea-Japan Joint Workshop on Algorithms and Computations), Seoul, Korea.
25. **ACSC 2009** (Australasian Computer Science Conference), Wellington, New Zealand.
26. **ISAAC 2008** (International Symposium on Algorithms and Computation), Gold Coast, Australia.
27. **GD 2008** (International Symposium on Graph Drawing), Crete, Greece.
28. **IEEE PacificVis 2008** (Pacific Visualization Symposium), Kyoto, Japan.
29. **WALCOM 2008** (Workshop on Algorithms and Computations), Bangladesh.
30. **CATS 2008** (Computing: The Australasian Theory Symposium), Wollongong, Australia.
31. **GD 2007** (International Symposium on Graph Drawing), Sydney, Australia.
32. **ISAAC 2007** (International Symposium on Algorithms and Computation), Sendai, Japan.
33. **APVIS 2007** (Asia Pacific Symposium on Information Visualisation), Sydney, Australia.
34. **WAAC 2007** (Korea-Japan Joint Workshop on Algorithms and Computations), Gwang-ju, Korea.

35. **APVIS 2006** (Asia Pacific Symposium on Information Visualisation), Tokyo, Japan.
36. **WAAC 2006** (Japan-Korea Joint Workshop on Algorithms and Computations), Japan.
37. **GD 2005** (International Symposium on Graph Drawing), Limerick, Ireland.
38. **APVIS 2005** (Asia Pacific Symposium on Information Visualisation), Sydney, Australia.
39. **ISAAC 2004** (International Symposium on Algorithms and Computation), Hong Kong, China.
40. **AWOCA 2004** (Australasian Workshop on Combinatorial Algorithms), Byron Bay, Australia.
41. **INVIS.AU 2004** (Australian Symposium on Information Visualisation), Christchurch, New Zealand.
42. **WAAC 2003** (Korea-Japan Joint Workshop on Algorithms and Computations), Sendai, Japan.
43. **GD 2002** (International Symposium on Graph Drawing), Irvine, USA.

Workshop Chair

1. **AVLCD 2011** (Workshop on Analysis and Visualisation of Large and Complex Data), Dec 13, 2010, Sydney, Australia.
2. **EII Taskforce Workshop on Network Analysis**, 15-16 Nov, 2005, Sydney, Australia.
3. **NICTA-EII Workshop on Plant Genomics**, 13-14 Nov, 2005, Sydney, Australia.
4. Workshop on Social Network Analysis and Visualisation, part of GD 2005 (International Symposium on Graph Drawing), Limerick, Ireland, 2005.
5. **NICTA VALACON Workshop on Social Networks**, June, 2005, Sydney, Australia.
6. **NICTA VALACON Workshop on Biological Networks**, November, 2004, Sydney, Australia.
7. **Spring Day: Workshop on Graph Drawing and Information Visualisation** (on the occasion of the 50th birthday of Peter Eades), 2002.
8. **Symmetry Workshop**, AWOCA 2000 (Australasian Workshop on Combinatorial Algorithms), Hunter Valley, Australia, 2000.

Organising Committee Chair

1. **ISAAC 2008** (International Symposium on Algorithms and Computation), Australia.
2. **GD 2007** (International Symposium on Graph Drawing), Sydney, Australia.
3. **IEEE/ACM APVIS 2007** (Asia Pacific Symposium on Visualisation), Sydney, Australia.
4. **APVIS 2005** (Asia Pacific Symposium on Information Visualisation), Sydney, Australia.

Reviewer: Journals

I have served as a regular reviewer for international journals:

- SIAM Journal on Computing
- Journal of Algorithms
- Algorithmica
- Theoretical Computer Science
- Computational Geometry: Theory and Applications
- International Journal of Computational Geometry and Applications
- Discrete Applied Mathematics
- Journal of Graph Algorithms and Applications

- IEEE Transaction on Visualisation and Computer Graphics
- Mathematical Programming B
- Information Visualization
- Information Processing Letters
- Journal of Visual Language and Computing
- AMS (American Mathematics Society) Review

Reviewer: Conferences

I have served as a regular external reviewer for international conferences:

- ISAAC (International Symposium on Algorithms and Computation)
- SODA (ACM-SIAM Symposium on Discrete Algorithms)
- COCOON (International Computing and Combinatorics Conference)
- GD (International Symposium on Graph Drawing)
- WADS (Algorithms and Data Structures Symposium)

Reviewer: MS & PhD Thesis

I have served as a reviewer for Ms/PhD Thesis:

- 2005 MS Thesis: Paul Li, University of Sydney
- 2006 PhD Thesis: University of Adelaide
- 2007 MS Thesis: Akira Kamada, Tohoku University, Japan
- 2010 PhD Thesis: Patrizio Angelini, University of Rome III, Italy

Reviewer: Grant Application

I have served as a reviewer for international grant applications:

- 2010 EuroGIGA Project
- 2009 Netherlands Organisation for Scientific Research

Board Member:

- Member of the Support Board of the Center for Graduate Education Initiative, JAIST (Japanese Institute of Advanced Technologies)

Linkage

Invited Talks at Conferences/Workshops

1. ***Invited Speaker 2011 Winter School on Mathematical and Computational Biology***, "Visualising and Analysing Massive Networks", Brisbane, 2011, July.
2. ***Invited Speaker, KOFST (Korean Federation of Science and Technology Societies) ULTRA (Universal Linkage for Top Research Advice) Workshop 2009***, "Visualisation and Analysis of Large and Complex Networks", Seoul, Korea, December. 2009.
3. ***Invited Speaker, KOFST (Korean Federation of Science and Technology Societies) ULTRA (Universal Linkage for Top Research Advice) Program 2009 – IT & Communication***, "Visualisation and Analysis of Large and Complex Networks", Sydney, October. 2009.
4. ***Invited Speaker 2009 Winter School on Mathematical and Computational Biology***, "Visualisation and Analysis of Large and Complex Biological Networks", University of Queensland, Brisbane, 2009, July.
5. ***Invited Speaker 2008 RIMS Workshop on Acceleration and Visualisation of Computation for Enumeration Problems***, "Visualisation and Analysis of Large and Complex Networks", RIMS, Kyoto, Japan, 2008, September.

6. ***Invited Speaker, IWAAG 2007,*** The International Workshop on Algorithms and Graphs, "Star-shaped Drawings of Graphs with Minimum Concave Corners", Sendai, Japan, 2007, December.
7. ***Invited Speaker***, ***AWOCA 2006,*** "Theory and Practice of Graph Drawing", 2006 July.
8. ***Invited Speaker, ACAL 2005,*** "Visualisation and Analysis of Large and Complex Networks", 2005 December.

Invited Presentation at Conferences/Workshops

1. **IEEE Pacificvis 2011**, Hong Kong, **Panel member**, "Visualization Research in Asia Pacific"
2. **Sunbelt 2010 Viszard Session**, Florida, US, "Visualisation and Analysis of Airline Traffic"
3. **Sunbelt 2008 Viszard Session**, Florida, US, "Visualisation and Analysis of Web of Science"
4. **Sunbelt 2007 Viszard Session**, Corfu, Greece, "Visualisation and Analysis of Wiki".
5. **Sunbelt 2006 Viszard Session,** Vancouver, Canada, "Visualisation and Analysis of Internet Movie Database".

Invited Seminars at Universities/Research Institutes/Industry

1. **KAIST**, Korea, "Recent Advances in Graph Drawing: Extending Steinitz's Theorem, Fary's Theorem and Tutte's Barycenter Theorem", 2012 Jan.
2. **Seoul National University**, Korea, "Recent Advances in Graph Drawing: Extending Steinitz's Theorem, Fary's Theorem and Tutte's Barycenter Theorem", 2012 Jan.
3. **National Tshing Hua University**, Taiwan, "Symmetric Drawings of Series Parallel Digraphs in Three Dimensions", 2011, December.
4. **KAIST**, Korea, "Graph-theoretic Characterisation of Non-convex Polyhedra", 2010 Jan.
5. **Seoul National University**, Korea, "Visualisation and Analysis of Large and Complex Networks", 2010 Jan.
6. **CYRAM**, Korea, "Visualisation and Analysis of Large and Complex Networks", 2010 Jan.
7. **Postech**, Korea, "Visualisation and Analysis of Large and Complex Networks", 2009 Dec.
8. **Yonsei University**, Korea, "Visualisation and Analysis of Large and Complex Networks", 2009 Dec.
9. **University of Rome Tre**, Italy, "Extending Convex Drawings of Graphs", 2009, Oct.
10. **National Taiwan University**, Taiwan, "Visualisation and Analysis of Large and Complex Networks", 2009, April.
11. **National Taiwan University**, Taiwan, "Extending Convex Drawings of Graphs", 2009, April.
12. **ACADEMIA SINICA**, Taiwan, "Extending Convex Drawings of Graphs", 2009, April.
13. **National Tshing Hua University**, Taiwan, "Visualisation and Analysis of Large and Complex Networks", 2009, April.
14. **KAIST**, Korea, "Extending Convex Drawings of Graphs", 2009, Jan.
15. **Seoul National University**, Korea, Extending Convex Drawings of Graphs", 2009, Jan.
16. **Ewha University**, Korea, "Visualisation and Analysis of Large and Complex Networks", 2009, Jan.
17. **Kyoto University**, Japan, "Extending Convex Drawings of Graphs", 2008, Oct.
18. **JAIST**, Japan, "Visualisation and Analysis of Large and Complex Networks", 2007, Nov.
19. **JAIST**, Japan, "Theory and Practice of 2.5D Graph Drawing", 2007, Nov.
20. **Kyoto University,** Japan, "Theory and Practice of 2.5D Graph Drawing", 2007, March.

21. **Kyoto University**, Japan, “Visualisation and Analysis of Large and Complex Networks”, 2007, March.
22. **Tohoku University,** Japan, “Theory and Practice of Graph Drawing: Visualisation and Analysis of Large and Complex Networks”, 2007, Jan.
23. **KAIST**, Korea, “Theory and Practice of Graph Drawing: Visualisation and Analysis of Large and Complex Networks”, 2007, Jan.
24. **Seoul National University**, Korea, “Theory and Practice of Graph Drawing: Visualisation and Analysis of Large and Complex Networks”, 2007, Jan.
25. **CYRAM**, Korea, “Visualisation and Analysis of Large and Complex Networks”, 2007, Jan.
26. **IPK**, Germany, “Visualisation and Analysis of Large and Complex Networks”, 2006 September.
27. **University of Queensland, IMB,** “Visualisation and Analysis of Large and Complex Networks”, 2006 June.
28. **Charles Darwin University,** “Theory and Practice of Graph Drawing”, 2006 June.
29. **CORE Chrice Wallace Seminar**, University of Sydney, “Theory and Practice of Graph Drawing”, 2006 April.
30. **DSTO** (Defence Science and Technology Organisation) Adelaide, “Visualisation and Analysis of Large and Complex Networks”, 2006 February.
31. **Dagstuhl Seminar** on Algorithmic Aspects of Large and Complex Networks, “Visualisation and Analysis of Large and Complex Scale-free Networks”, September, 2005.
32. **University of Sydney**, Basser Seminar Series, June, 2005, “Visualisation and Analysis of Large and Complex Networks”
33. **Dagstuhl Seminar** on Graph Drawing, “Visualisation and Analysis of Large and Complex Networks”, May, 2005.
34. Kyoto University, Japan, “Symmetric Graph Drawing: an overview”, March 2005.
35. **Telstra Research Lab**, Melbourne, “Visualisation and Analysis of Large and Complex Networks”, December 2004.
36. **University of NSW**, “Visualisation and Analysis of Large and Complex Networks”, November 2004.
37. **Netmap Analytics,** Sydney, “Visualisation and Analysis of Large and Complex Networks”, October 2004.
38. **University of Karlsruhe**, Germany, “The Metro Map Layout Problem”, May 2004.
39. **University of Konstanz**, Germany, “Symmetric Graph Drawing in Three Dimensions”, May 2004.
40. **University of Lethbridge**, Canada, “Symmetric Graph Drawing: a survey”, February 2004.
41. **University of Victoria,** Canada, “Symmetric Graph Drawing: a survey”, January, 2004.
42. **JAIST**, Japan, “Symmetric Graph Drawing in Two Dimensions”, February, 2003.
43. **JAIST**, Japan, “Symmetric Graph Drawing: a survey”, January, 2003.
44. **KAIST**, Korea, “Symmetric Graph Drawing”, January, 2003.
45. **Seoul National University**, Korea, “Graph Drawing and Information Visualisation”, January, 2003.
46. **Brown University**, USA, Department of Computer Science Seminar, “Drawing Planar Graphs Symmetrically”, March 19, 2001.
47. **National Taiwan University**, Taiwan, Department of Electrical Engineering Seminar, “Drawing Planar Graphs Symmetrically”, December 21, 2000.
48. **University of Queensland**, School of Computer Science and Electrical Engineering Seminar, “Algorithms for Finding Planar Geometric Automorphisms in Planar Graphs”, April 7, 2000.

49. **Australian National University**, Department of Computer Science Seminar, “Algorithms for Finding Planar Geometric Automorphisms in Planar Graphs”, March 29, 2000.
50. **University of Western Australia**, Department of Mathematics, Pure Mathematics Seminar, “Algorithms for Finding Planar Geometric Automorphisms in Planar Graphs”, March 22, 2000.
51. **University of Cologne,** Germany, “Drawing Series Parallel Digraphs Symmetrically”, February 1999.
52. **Max-Planck-Institut fur Informatik**, Saarbrucken, Germany, 1999. “Drawing Series Parallel Digraphs Symmetrically”, February 1999.

Invitations: International Workshop

1. 2012 June Dagstuhl workshop on Putting Data on the Map
2. 2012 March Bertinoro workshop on Graph Drawing
3. 2011 June Port Douglas Workshop on Geometric Graph Theory
4. 2011 May Dagstuhl workshop on Graph Drawing with Algorithm Engineering Methods
5. 2011 March Bertinoro workshop on Graph Drawing
6. 2010 November Dagstuhl workshop on Schematization in Cartography, Visualization, and Computational Geometry
7. 2010 August BlueMountain Workshop on Geometric Graph Theory
8. 2010 March Bertinoro workshop on Graph Drawing
9. 2009 May Dagstuhl workshop on Visualisation and Monitoring of Network Traffic
10. 2009 March Bertinoro workshop on Graph Drawing
11. 2008 May Dagstuhl workshop on Graph Drawing with Applications to Bioinformatics and Social Sciences
12. 2008 March Bertinoro workshop on Graph Drawing: Visualisation of Large Graphs
13. 2007 May Dagstuhl workshop on Information Visualization - Human-Centered Issues in Visual Representation, Interaction, and Evaluation
14. 2007 March Bertinoro workshop on Graph Drawing and Computational Geometry
15. 2006 March Bertinoro workshop on Graph Drawing
16. 2005 September Dagstuhl workshop on Algorithmic Aspects of Large and Complex Networks
17. 2005 May Dagstuhl workshop on Graph Drawing
18. 1998 July Dagstuhl workshop on Graph Algorithms and Applications

Conference Presentations

I have presented research talks at the following conferences:

1. **AAAC 2011** (Asian Association on Algorithms and Computation), Hsin-Chu, Taiwan.
2. **AAAC 2010** (Asian Association on Algorithms and Computation), Pohang, Korea.
3. **ISAAC 2009** (International Symposium on Algorithms and Computation), Hawaii, USA.
4. **IV 2009** (Information Visualisation), Barcelona, Spain.
5. **Pacificvis 2009** (Pacific Visualization Symposium), Beijing, China.
6. **PacificVis 2008** (Pacific Visualization Symposium), Kyoto, Japan.
7. **IWOCA 2007** (International Workshop on Combinatorial Algorithms), Australia.
8. **WAAC 2007** (Japan-Korea Joint Workshop on Algorithms and Computations), Korea.
9. **Sunbelt 2007**, Corfu, Greece.
10. **GD 2005** (International Symposium on Graph Drawing), Limerick, Ireland.
11. **Sunbelt 2006,** Vancouver, Canada.
12. **Sunbelt 2005**, LA, USA
13. **GD 2004** (International Symposium on Graph Drawing), New York, USA.
14. **ISAAC 2003** (International Symposium on Algorithms and Computation), Kyoto, Japan.

15. **IEEE InfoVis 2003** (IEEE Symposium on Information Visualisation), Seattle, USA.
16. **SoCG 2003** (ACM Symposium on Computational Geometry), San Diego, USA.
17. **AWOCA 2003** (Australasian Workshop on Combinatorial Algorithms), Seoul, Korea.
18. **WAAC 2003** (Japan-Korea Joint Workshop on Algorithms and Computations), Sendai, Japan.
19. **GD 2002** (International Symposium on Graph Drawing), Irvine, USA.
20. **SODA 2002** (ACM-SIAM Symposium on Discrete Algorithms), San-Francisco, USA.
21. **GD 2001** (International Symposium on Graph Drawing), Vienna, Austria.
22. **AMS** (American Mathematics Society) Meeting 2001, Columbia, South Carolina, USA.
23. **ISAAC 2000** (International Symposium on Algorithms and Computation), Taipei, Taiwan.
24. **GD 2000** (International Symposium on Graph Drawing), Williamsburg, USA.
25. **AWOCA 2000** (Australasian Workshop on Combinatorial Algorithms), Hunter Valley, Australia.
26. **KISS 2000** (Korea Information Science Society Conference), Korea.
27. **ISAAC 98** (International Symposium on Algorithms and Computation), Korea.
28. **GD 98** (International Symposium on Graph Drawing), Montreal, Canada
29. **SoftVis 97** (Software Visualisation Workshop), Adelaide, Australia.
30. **WAAC 97** (Japan-Korea Joint Workshop on Algorithms and Computation), Fukuoka, Japan
31. **KISS 97** (Korea Information Science Society Conference), Korea.

Invitations: Academic Visit (International)

1. 2012 University of Perugia, Italy (Host: Professor Giuseppe Liotta)
2. 2011 National Tsing-Hua University, Taiwan (Host: A/Prof. Sheung-Hung Poon)
3. 2011 Natioanl JiaoTong University, Taiwan (Host: A/Prof. Chun-Cheng Lin)
4. 2011 University of Perugia, Italy (Host: Professor Giuseppe Liotta)
5. 2010 Kyoto University, Japan (Host: Prof. Naoki Katoh)
6. 2010 Karlsruhe Institute of Techmology (Host. Prof. Dorothea Wagner)
7. 2010 University of Perugia, Italy (Host: Professor Giuseppe Liotta)
8. 2010 KAIST, Korea (Host: Professor KyungYong Chwa)
9. 2010 Seoul National University, Korea (Host: Professor KunSoo Park)
10. 2009 Postech (Host: A/Professor Hee-Kap Ahn)
11. 2009 Yonsei University (Host: A/Professor Bernd Bergstaller)
12. 2009 University of Rome Tre, Italy (Host: Professor Giuseppe di Battista)
13. 2009 University of Perugia, Italy (Host: Professor Giuseppe Liotta)
14. 2009 National Taiwan University (Host: Professor Hsu-Chun Yen)
15. 2009 Kyoto University, Japan (Host: Prof. Hiroshi Nagamochi)
16. 2009 KAIST, Korea (Host: Professor KyungYong Chwa)
17. 2009 Seoul National University, Korea (Host: Professor KunSoo Park)
18. 2009 Ewha University (Host: Professor Sang-Ho Lee)
19. 2008 University of Perugia, Italy (Host: Professor Giuseppe Liotta)
20. 2008 RIMS, Kyoto, Japan (Host: Professor Satoru Iwata)
21. 2008 Kyoto University, Japan (Host: Prof. Hiroshi Nagamochi)
22. 2007 JAIST, Japan (Host: Prof. Kozo Sugiyama)
23. 2007 Kyoto University, Japan (Host: Prof. Hiroshi Nagamochi)
24. 2007 Tohoku University, Japan (Host; Prof. Takao Nishizeki)
25. 2007 KAIST, Korea (Host: Professor KyungYong Chwa)
26. 2007 Seoul National University, Korea (Host: Professor KunSoo Park)
27. 2006 IPK, Germany (Host: Dr. Falk Schreiber)
28. 2005 University of Limerick (Host: Dr. Patrick Healy and Dr. Nikola Nikolov)
29. 2005 Technical University of Eindhoven (Host: Dr. Hein van der Holst)

30. 2005 Kyoto University, Japan (Host: Professor Hiroshi Nagamochi)
31. 2004 MERL, Boston, US (Host: Joe Marks and Kathy Ryall)
32. 2004 University of Irvine, US (Host: Prof. Michael Goodrich, Prof. Freeman)
33. 2004 University of Electro-Communications, Japan (Host: Associate Professor Koike Hideki)
34. 2004 University of Karlsruhe, Germany (Host: Prof. Dr. Dorothea Wagner and Dr. Alexander Wolff)
35. 2004 University of Konstanz, Germany (Host: Prof. Dr. Ulrik Brandes)
36. 2004 University of Kent, England (Host: Dr. Peter Rodgers)
37. 2004 Bioinformatics Group (Network Analysis), The Institute of Plant Genetics and Crop Plant Research (IPK), Germany (Host: Dr. Falk Schreiber)
38. 2004 University of Ottawa, Canada (Host: Associate Professor Prosenjit Bose)
39. 2004 University of Lethbridge, Canada (Host: Associate Professor Stephen Wismath)
40. 2004 University of Victoria, Canada (Host; Professor Frank Ruskey)
41. 2003 JAIST, Japan (Host: Professor Kozo Sugiyama)
42. 2003 KAIST, Korea (Host: Professor KyungYong Chwa)
43. 2003 Seoul National University, Korea (Host: Professor KunSoo Park)
44. 2001 University of Perugia, Italy (Host: Professor Giuseppe Liotta)
45. 2001 University of Rome Tre, Italy (Host: Professor Giuseppe Di Battista)
46. 2001 Brown University, USA (Host: Professor Roberto Tamassia)
47. 1999 University of Limerick, Ireland (Host: Dr. Patrick Healy)
48. 1999 Max-Planck-Institut fur Informatik, Saarbrucken, Germany (Host: Dr. Petra Mutzel)
49. 1999 University of Colone, Colone, Germany (Host: Professor Michael Junger)
50. 1998 University of Limerick, Ireland (Host: Dr. Patrick Healy)

Invitations: Academic Visit (Australia)

1. 2006 University of Queensland (Host: Prof. Mark Ragan and Kay Basford)
2. 2006 Charles Darwin University (Host: Dr. Ian Roberts)
3. 2006 University of Melbourne (Host: Prof. Pip Pattison and Dr. Garry Robins)
4. 2006 UNSW (Host: Dr. Rohan Williams)
5. 2004 UNSW (Host: Dr. Rohan Williams)
6. 2003 Australian National University (Host: Professor Brendan McKay)
7. 2002 Australian National University (Host: Professor Brendan McKay)
8. 2002 University of Queensland (Host: Associate Professor George Havas)
9. 2001 Australian National University (Host: Professor Brendan McKay)
10. 2001 University of Queensland (Host: Associate Professor George Havas)
11. 2000 Australian National University (Host: Professor Brendan McKay)
12. 2000 University of Queensland (Host: Associate Professor George Havas)
13. 2000 University of Western Australia (Host: Professor Cheryl Prager)
14. 1997-8 University of Newcatsle (Host: Professor Peter Eades)