

Curriculum Vitae

Peter Wonka, November 2015
pwonka@gmail.com, <http://peterwonka.net/>
KAUST, Arizona State University

Personal Information

- Name: Peter Wonka (Dipl.-Ing. Dipl.-Ing. Dr.techn.)
- Place of birth: Vienna, Austria
- Languages: English, German, French

Professional Preparation

- Vienna University of Technology, M.S., Urban Planning, 2002 (Dipl.-Ing. – 5 year degree)
- Vienna University of Technology, Ph.D., Computer Science, 2001 (Dr. techn.)
- Vienna University of Technology, M.S., Computer Science, 1997 (Dipl.-Ing. – 5 year degree)

Appointments

- July 2014 – current: Professor, KAUST, KSA
- August 2011 - July 2014: Associate Professor, KAUST, KSA
- Aug 2010 - current: Associate Professor, Arizona State University, USA
- Aug 2004 – May 2010: Assistant Professor, Arizona State University, USA
- Aug 2002 – Aug 2004: Postdoctoral Researcher, Georgia Institute of Technology, USA
- Oct 1997 – Aug 2002: Research Assistant, Vienna University of Technology, Austria
- June 2000 - Jan 2001: Researcher, UJF Grenoble (iMAGIS - GRAVIR/IMAG, INRIA), France
- March 2000 – June 2000: Lecturer, Fachhochschule Hagenberg, Austria
- March 1999 – June 1999: Lecturer, Fachhochschule Hagenberg, Austria
- Sept 1998 – Jan 1999: Researcher, University of Rennes I, France

Awards and Stipends:

- 2015 CAD / Graphics best paper award (three awards given)
- 2014: Eurographics best paper award (honorable mention – one best paper award and two honorable mention given in total)
- 2011: Eurographics best paper award (2nd place)
- 2006: NSF CAREER Award
- 2006: Best Proposal Award for GAMEWORLD, 2006
- 2006: Best Paper Award at VAST – 2nd place (Eurographics Symposium on Virtual Reality, Archaeology and Cultural Heritage)
- 2001: Eurographics best paper award (Günther Enderle Award for the best paper)
The same paper also received the best student paper award

Conference Activities - Program Committee Member:

- ACM Siggraph 2009, 2010, 2015
- ACM Siggraph Asia, 2011, 2014
- IEEE Visualization 2009, 2010, 2011
- Eurographics 2012, 2014, 2015
- Eurographics Symposium on Rendering 2003, 2007, 2008
- ACM Symposium on Interactive 3D Graphics 2007, 2008, 2009, 2010, 2011, 2012, 2013
- IEEE Symposium of Interactive Ray Tracing 2007, 2008
- Eurographics Short Paper 2007
- Pacific Graphics 2004
- Shape Modeling International 2011, 2012, 2013, 2014
- AAG 2014
- CAD Graphics 2015

Conference Activities - Organization

- Pacific Graphics, Papers Chair, 2014
- IEEE Symposium of Interactive Ray Tracing, Treasurer, 2008

Conference Activities - Reviewing

- SIGGRAPH Conference
- SIGGRAPH Asia
- SIGGRAPH Symposium on Interactive 3D Graphics
- IEEE Visualization
- IEEE Virtual Reality
- IEEE Symposium on Interactive Ray Tracing
- EUROGRAPHICS Annual Conference
- EUROGRAPHICS Workshop on Rendering
- EUROGRAPHICS Workshop on Virtual Environments
- EUROGRAPHICS Workshop on Computational Aesthetics
- Joint EUROGRAPHICS - IEEE TCVG Symposium on Visualization
- Virtual Reality Modeling Language Symposium
- AAPR conference
- Summer Conference on Computer Graphics (Bratislava, Slovakia)
- Shape Modeling International
- Winter School on Computer Graphics (Plzen, Czech Republic)
- Pacific Graphics
- Graphics Interface

Journal Guest Editor

- Computers and Graphics, 2010
- IEEE Computer Graphics and Applications, 2008

Journal Editorial Board

- ACM Transactions on Graphics 2013 - current
- Computer Graphics Forum 2010 - 2013

Journal Referee Service

- IEEE Transactions on Visualization and Computer Graphics (TVCG)
- ACM Transactions on Graphics (TOG)
- IEEE PAMI
- Computer Graphics Forum
- IEEE Computer Graphics and Applications
- Visual Computer
- International Journal of Computers and Application
- Graphical Models
- Computers and Graphics
- Geoscience and Remote Sensing Letters
- IEEE Transactions on Computational Intelligence and AI in Games

Proposal Reviewer Service

- National Science Foundation, USA
- Ireland, Hong Kong, Israel, Czech Republic, France, Austria
- Thompson Publishing

Department Committee Service ASU

- Graduate Admissions Committee 2004, 2005, 2006, 2007
- Computing Resources Committee 2007, 2008
- Faculty Hiring Committee 2008 (Chair), 2009, 2010, 2011
- College Hiring Committee 2009, 2010
- Graduate Program Committee 2009, 2010, 2011
- Personnel Committee 2010, 2011
- Informatics Committee 2010, 2011

Department Committee Service KAUST

- Graduate Admissions Committee 2011 (chair), 2012, 2013, 2014 (chair), 2015 (chair)
- Recruiting Committee 2013, 2014, 2015
- Curriculum Committee 2014, 2015

University Committee Service KAUST

- Academic Council 2011, 2012

Visual Computing Center KAUST

- Associate Director, Visual Computing Center (VCC, previously GMSV), 2013 - current
- Acting director of GMSV Nov 2013 - Jan 2014

Local Professional Committees

- Intel Science Fair 2005

Invited Keynote Presentations

1. Pacific Graphics, “Computational Design of Urban Layouts”, October 2015

Invited Presentations

2. IST Austria, “Exploring Quadrangulations”, July 2015
3. Ecole Polytechnique Paris, “Mesh Connectivity Editing for Modeling Applications”, June 2015
4. TU Vienna, “Computational Design of Urban Layouts”, November 2014
5. Ewha Womens University, “Mesh Connectivity Editing for Modeling Applications”, October 2014
6. UBC Vancouver, “Design Computation for Urban Layouts”, August 2014
7. IST Austria, “Design Computation for Urban Layouts”, July 2014
8. University of Hong Kong, “Modeling of Street Layouts, Mass Models, and Facades”, November 2013
9. UCL London, “Modeling of Street Layouts, Mass Models, and Facades”, June 2013
10. Tsinghua University, “Connectivity Editing for Polygonal Meshes”, November 2012
11. Microsoft Research Asia, “Recent Work in Urban and Architectural Modeling”, November 2012
12. SIAT. “Architectural Modeling and Reconstruction”, November 2012
13. TU Graz, “Recent Work in Urban and Architectural Modeling”, June 2012
14. TU Vienna, “Interactive Modeling with Procedural Extrusions”, June 2012
15. IST Austria, “Connectivity Editing of Irregular Vertices”, August 2011
16. Purdue, “Procedural Modeling of Patterns on Surfaces”, October 2010
17. KAUST, “Modeling and Visualization of Urban Environments”, September 2010
18. University of Utah, “Modeling and Visualization of Urban Environments”, June 2010
19. Navteq, Chicago “Modeling and Visualization of Urban Environments”, May 2010
20. Lawrence Livermore National Laboratory, "Remote Sensing Research at PRISM", December 2008
21. University of Girona, “Procedural Modeling of Urban Environments”, July 2008
22. VRVIS Vienna, “Modeling of Urban Environments”, June 2008
23. Technical University of Vienna, “Computer Graphics Education for Graduate Students”, June 2008
24. Google Research, California, “Urban Reconstruction & Modeling for Building Virtual Worlds”, March 2008
25. University of Utah, “Modeling and Visualization of Urban Environments”, November 2007
26. Oregon State University, February 2007
27. Valve, Seattle, October 2006
28. Universitaet Stuttgart, September 2006
29. Intel Research, Santa Clara, February 2006
30. Eidgenössische Technische Hochschule Zürich (ETH), July 2005
31. Eidgenössische Technische Hochschule Zürich (ETH), June 2004
32. Simon Frasier University, April 2004
33. Arizona State University, April 2004
34. Stony Brook University, March, 2004
35. University College London, England, June 2002
36. Graz University of Technology, Graz, Austria, May 2001
37. Karlava University of Prague, Prague, Czech Republic, April 2001
38. iMAGIS seminar, Grenoble, France, March 2000
39. University of Rennes I, Rennes, France, January 1999

Teaching

- Computer Graphics (AMCS 248), KAUST, Fall 2011, Fall 2012, Fall 2013, Fall 2014, Fall 2015
- Geometry Processing (AMCS 272), KAUST, Spring 2012, Spring 2013, Spring 2015
- Graphics for Games (CPI411), Arizona State University, Spring 2009, Spring 2010, Spring 2011
- Introduction to Computer Graphics (CSE 470), Arizona State University, Fall 2005, Fall 2006, Fall 2007, Fall 2009, Fall 2010
- Real-time Rendering (CSE 591), Arizona State University, Spring 2005, Spring 2007, Spring 2008, Fall 2009
- Introduction to ASU (ASU 101), Arizona State University, Fall 2008
- Advanced Computer Graphics (CSE 570), Arizona State University, Spring 2006, Spring 2008
- Introduction to Theoretical Computer Science (CSE355), Arizona State University, Spring 2005
- Multi-media Programming (MMP6), Fachhochschule Hagenberg, Spring 1999, Spring 2000

Courses at Conferences and Workshops

1. **Practical Grammar-based Procedural Modeling of Architecture**
Michael Schwarz, Peter Wonka
Course at ACM SIGGRAPH ASIA 2015
2. **A Survey of Urban Reconstruction**
Przemyslaw Musialski, Peter Wonka, Daniel G. Aliaga, Michael Wimmer, Luc van Gool, Werner Purgathofer
State of the Art Report at Eurographics 2012
3. **Modeling 3D Urban Spaces Using Procedural and Simulation-Based Techniques**
Peter Wonka, Daniel Aliaga, Pascal Müller, Carlos Vanegas, Michael Frederickson
Course at ACM SIGGRAPH 2011
4. **Modeling the Appearance and Behavior of Urban Spaces**
Carlos Vanegas, Daniel G. Aliaga, Pascal Müller, Paul Waddell, Ben Watson, Peter Wonka
State of the Art Report at Eurographics 2009
5. **Urban Design and Procedural Modeling.**
B. Watson, P. Müller, P. Wonka, A. Fuller
Course at ACM SIGGRAPH 2007.
6. **Procedural Modeling of Urban Environments.**
Peter Wonka, Ben Watson, Pascal Mueller, Eric Haines
Course at ACM SIGGRAPH 2006

Current Projects

Notes: The percentages indicate the allocated recognition for each project as tracked by ASU.

- Urban Image Analysis for Urban Modeling, Peter Wonka (PI), Ganesh Sundaramoorthi
KAUST Competitive Research Grant, 2015 – 2018. 3 yrs. 677K, KAUST

Completed Projects

- 3D Modeling using Multi-Sided Patches, Peter Wonka (PI), Alyn Rockwood, Tamas Varadi
Boeing Company. 2013 – 2015. 3yrs. 550K, KAUST
- CAREER: Constrained Procedural Urban Modeling.
Peter Wonka (PI, 100%),
NSF. 2007 – current. 5 yrs (extended). \$400K, ASU
- Multi-source Visual Analytics
Jieping Ye, Peter Wonka (Co-PI 25%), Anshuman Razdan
NSF. 2009 – 2014, 3yrs. 500K, ASU
- HCC: Small: Collaborative Research: Graph and Pattern Design on Surfaces
Eugene Zhang, OSU and Peter Wonka, ASU
NSF. 2008 – 2013. 3 yrs. 250K, ASU
- CPA-G&V: Tensor Factory
Peter Wonka (PI, 50%), Jieping Ye (Co-PI)
NSF. 2008 – 2011. 3 yrs. \$299K
- Aerospace and Defense Initiative
Rick Shangraw et al. (Peter Wonka Co-PI 7%)
SFAZ. 2010 – 2011, 1yr, 1M, ASU
- Geospecific Displacement Maps for Real Time, Stereoscopic Training Simulation
Anshuman Razdan, Peter Wonka (Co-PI 50%), John Femiani
SBIR Phase 1. 2010 – 2011, 6 months. 50K, ASU + STRC
- Pilot: SOUZOU - Creativity through Procedural Modeling
Yoshihiro Kobayashi (PI), Peter Wonka (Co-PI, 50%)
NSF. 2008 – 2011. 2+1 yrs. \$199K
- Gameworld.
Michael Wimmer(PI), Peter Wonka(Co-PI, 100K Euro subcontract), Harald Riegler (Co-PI)
FIT-IT. 2007 – 2010. 3 yrs. 500K Euro
- Integrated Spectral Dimensionality Reduction.
Jieping Ye (PI), Peter Wonka (Co-PI, 25%), Anshuman Razdan (Co-PI)
NGA. 2008 – 2010. 2 yrs. \$300K
- Visual Geo-Analytics
Peter Wonka (PI, 50%), Anshuman Razdan (Co-PI), Elisabeth Wentz (Co-PI)
NSF. 2006 – 2010. 3 yrs. \$623K
- Innovative 2D/3D Building, Asset, and Resource Tracking Visualization Tool.
Kutta Consultion (PI), A. Razdan (Co-PI), Peter Wonka (Co-PI, ~20%)
SBIR. 2007 – 2010. 2.5 yrs. Phase I \$100K + Phase II \$450K.
- Procedural Details
Peter Wonka (PI, 80%), Jieping Ye (Co-PI)
NVIDIA. 2008. 6 months. 2008. \$25K
- Interactive Procedural Urban Reconstruction from Aerial Images
Google. Peter Wonka (PI 100%). 2008. \$40000 USD
- Geometry-based Feature Extraction and Analysis for Geospatial Datasets
Anshuman Razdan (PI), Peter Wonka (Co-PI, 50%)
NGA. 2005 – 2008. 3 yrs. \$450K
- Image-based Simplification for 3D GIS.
Peter Wonka (PI)
2002 – 2004, Austrian Science Fund (FWF), 70K Euro

Recent Collaborators (2 years) and Advisors

- Dieter Schmalstieg (TU Graz), PhD advisor
- Michael Gervautz (Qualcomm), PhD advisor
- William Ribarsky (UNC-C), postdoctoral advisor
- Michael Wimmer (TU Vienna), collaborator
- Pascal Mueller (ESRI), collaborator
- Anshuman Razdan (ASU), collaborator
- John Femiani (ASU), collaborator
- Jieping Ye (ASU), collaborator
- Helmut Pottmann (KAUST, TU Vienna), collaborator
- Niloy Mitra (KAUST, University College London), collaborator
- Xiaopeng Zhang (Chinese Academy of Sciences), collaborator
- Ligang Liu (USTC), collaborator
- Etienne Vouga (UT Austin), collaborator

Masters Thesis Awarded

- Sahar A Aseeri (MS), KAUST, graduated 2013
- Mohamed Ibrahim (MS), KAUST, graduated 2012, first employment: PhD student at KAUST
- Yuanyuan Li (MS), ASU, graduated 2010
- Ji Liu (MS), ASU, graduated 2010, first employment: PhD student at U of Wisconsin
- Kaichi Zhou (MS), ASU, graduated 2008, first employment: NVIDIA
- Deepali Bhagvat (MS), ASU, graduated 2008, first employment: Microsoft
- Saif Ali (MS), ASU, graduated 2007, first employment: AMD

Doctoral Dissertations Awarded

- Pushpak Karnick, ASU, graduated August 2009 (co-chair Anshuman Razdan), first employment: DigiPen Institute of Technology, Seattle
- Ming Cui, ASU, graduated February 2010 (co-chair Anshuman Razdan), first employment: Google
- Fan Bao, graduated December 2014, first employment: Facebook
- Chi-han Peng, graduated December 2014, first employment: post-doc with Prof. Mitra at UCL
- Sen Yang, graduated December 2014, first employment: Alibaba R&D, Seattle

Current Graduate Students

- Lama Affara (PhD), KAUST, starting date August 2013
- Jing Ren (PhD), KAUST, starting date August 2015

Post-Doctoral Researchers

- Lubin Fan, KAUST, 2014 – current
- Feilong Yan, KAUST, 2015 – current
- Mohamed Hachama, KAUST, 2014 - current
- Paul Guerrero, KAUST, 2015
- Yuanyuan Cao, KAUST, 2013 - 2015
- Mohamed Ben Romdhane, KAUST, 2012
- Dongming Yang, KAUST, 2011 – 2014
- Michael Schwarz, ASU, 2010 – 2011
- David Cline, ASU, 2007 – 2009
- Stefan Jeschke, ASU, 2007 – 2009

Visitors

- Paul Guerrero, KAUST, 2012 – 2015 (multiple visits)
- Fuzhang Wu, KAUST, 2012
- Gurkan Koldas, ASU, 2010
- Tom Kelly, ASU, 2009

- Alejandro Sanchez Guinea, ASU, 2009-2010
- Fu Yinghua, ASU, 2007

Undergraduate Projects Supervised

- Naheel Alshafei, KAUST, Summer 2015
- Yazeed AlHarbi, KAUST, Summer 2014,
- Robert Winkler, ASU, Fall 2011, NSF
- Daniel Garvey, ASU, Fall 2010, NSF
- Paul Silkey, ASU, Fall 2010, NSF
- Robert Nelson, ASU, Spring 2008, Fulton Research Initiative for Undergraduates
- Sean Williams, ASU, Spring 2006, Fulton Research Initiative for Undergraduates
- Seth Carpenter, ASU, Spring 2006, Fulton Research Initiative for Undergraduates
- Jacob Boyle, ASU, Fall 2006, Fulton Research Initiative for Undergraduates

Refereed Archival Journal Publications

Notes: students officially under my supervision are marked in italics. In Visual Computing many conferences publish the proceedings as special issues of journals. For example ACM SIGGRAPH has published proceedings in ACM TOG since 2002 and IEEE Visualization has published proceedings in IEEE TVCG since 2006. In case a conference directly publishes proceedings in a journal I only list them as journal publication. For citation statistics please refer to my google scholar page [<http://scholar.google.com/citations?user=0EKXSXgAAAAJ>].

1. **Learning Shape Placements by Example**
Paul Guerrero, Stefan Jeschke, Michael Wimmer, Peter Wonka
ACM Transactions on Graphics (Proceedings of ACM Siggraph), 2015.
2. **Interactive Design of Probability Density Functions for Shape Grammars**
Minh Dang, Stefan Lienhard, Duygu Ceylan, Boris Neubert, Peter Wonka, Mark Pauly
ACM Transactions on Graphics (Proceedings of ACM Siggraph Asia), 2015
3. **Polyhedral Pattern**
Caigui Jiang, Chengcheng Tang, Amir Vaxman, Peter Wonka, Helmut Pottmann
ACM Transactions on Graphics (Proceedings of ACM Siggraph Asia), 2015
4. **Automatic Constraint Detection for Layout Regularization**
Haiyong Jiang, Liangliang Nan, Dong-Ming Tan, Weiming Dong, Xiaopeng Zhang, Peter Wonka
IEEE Transactions on Visualization and Graphics, 2015
5. **Non-obtuse Remeshing with Centroidal Voronoi Tessellation**
Dong-Ming Yan, Peter Wonka
IEEE Transactions on Visualization and Graphics, 2015 (accepted)
6. **Interactive Dimensioning of Parametric Models**
Tom Kelly, Peter Wonka, Pascal Mueller
Computer Graphics Forum (Proceedings of Eurographics), 2015.
7. **Designing Camera Networks by Convex Quadratic Programming**
Bernard Ghanem, Yuanhao Cao, Peter Wonka
Computer Graphics Forum (Proceedings of Eurographics), 2015.
8. **Template Assembly for Detailed Urban Reconstruction**
Liangliang Nan, Caigui Jiang, Bernard Ghanem, Peter Wonka
Computer Graphics Forum (Proceedings of Eurographics), 2015.
9. **A Survey of Blue-Noise Sampling and Its Applications**
Dong-Ming Yan, Jianwei Guo, Bin Wang, Xiaopeng Zhang, Peter Wonka
Journal of Computer Science and Technology, 30(4), 439-452. 2015.
10. **Capacity Constrained Blue-Noise Sampling on Surfaces**
Sen Zhang, Jianwei Guo, Hui Zhang, Xiaohong Jia, Dong-Ming Yan, Jun-Hai Yong, Peter Wonka
Computers and Graphics, 2015 (accepted)
11. **Reconstructing Building Mass Models from UAV Images**
Minglei Li, Liangliang Nan, Neil Smith, Peter Wonka
Computers and Graphics (Proceedings of CAD Graphics), 2015.
12. **Fused Multiple Graphical Lasso**
Sen Yang, Zhaosong Lu, Xiaotong Shen, Peter Wonka, Jieping Ye
SIAM Journal on Optimization, 2015.
13. **Lasso screening rules via dual polytope projection**
Jie Wang, Peter Wonka, Jieping Ye
Journal of Machine Learning Research, 2015.
14. **Robust Rooftop Extraction From Visible Band Images Using Higher Order CRF**
Er Li, John Femiani, Shibiao Xu, Xiaopeng Zhang, Peter Wonka
IEEE Transactions on Geoscience and Remote Sensing, 2015.
15. **Shadow Based Rooftop Segmentation In Visible Band Images**
John Femiani, Er Li, Anshuman Razdan, Peter Wonka
IEEE J-STARS, 2015.
16. **Inverse Procedural Modeling of Facade Layouts**
Fuzhang Wu, Dong-Ming Yan, Weiming Dong, Xiaopeng Zhang, Peter Wonka
ACM Transactions on Graphics (Proceedings of ACM Siggraph), 2014.
17. **Computing layouts with deformable templates**

- Chi-han Peng, Yong-Liang Yang, Peter Wonka*
ACM Transactions on Graphics (Proceedings of ACM Siggraph), 2014.
18. **PushPull++**
Markus Lipp, Peter Wonka, Pascal Mueller
ACM Transactions on Graphics (Proceedings of ACM Siggraph), 2014.
 19. **Exploring Quadrangulations**
Chi-han Peng, Michael Barton, Caigui Jiang, Peter Wonka
ACM Transactions on Graphics, 2014.
 20. **Edit Propagation using Geometry Relationship Functions**
Paul Guerrero, Stefan Jeschke, Michael Wimmer, Peter Wonka
ACM Transactions on Graphics, 2014.
 21. **Procedural Design of Exterior Lighting for Buildings with Complex Constraints**
Michael Schwarz, Peter Wonka
ACM Transactions on Graphics, 2014.
 22. **Structure Completion for Grid Layouts**
Lubin Fan, Przemyslaw Musialski, Ligang Liu, Peter Wonka
ACM Transactions on Graphics (Proceedings of ACM Siggraph Asia), 2014.
 23. **Low-Resolution Remeshing using the Localized Restricted Voronoi Diagram**
Dongming Yan, Guanbo Bao, Xiaopeng Zhang, Peter Wonka
IEEE Transactions on Visualization and Graphics, 2014.
 24. **Unbiased Sampling and Meshing of Isosurfaces**
Dongming Yan, Johannes Wallner, Peter Wonka
IEEE Transactions on Visualization and Graphics, 2014.
 25. **Parallel Generation of Architecture on the GPU**
Markus Steinberger, Michael Kenzel, Bernhard Kainz, Joerg Mueller, Peter Wonka, Dieter Schmalstieg
Computer Graphics Forum (Proceedings of Eurographics). 2014.
 26. **On-the-fly Generation and Rendering of Infinite Cities on the GPU**
Markus Steinberger, Michael Kenzel, Bernhard Kainz, Peter Wonka, Dieter Schmalstieg
Computer Graphics Forum (Proceedings of Eurographics). 2014.
 27. **Automatic Generation of Tourist Brochures**
Michael Birsak, Przemyslaw Musialski, Peter Wonka, Michael Wimmer
Computer Graphics Forum (Proceedings of Eurographics). 2014.
 28. **Blue-Noise Remeshing with Farthest Point Optimization**
Dong-Ming Yan, Jianwei Guo, Xiaohong Jia, Xiaopeng Zhang, Peter Wonka
Computer Graphics Forum (Proceedings of SGP). 2014.
 29. **What Makes London Work Like London?**
Sawsan Al-Halawani, Yongliang Yang, Peter Wonka, Niloy Mitra
Computer Graphics Forum (Proceedings of SGP). 2014.
 30. **Efficient Triangulation of Poisson-disk Sampled Point Sets**
Jianwei Guo, Dongming Yan, Guanbo Bao, Weiming Dong, Xiaopeng Zhang, Peter Wonka
Visual Computer (Proceedings of CGI). 2014.
 31. **Patch Layout Generation by Detecting Feature Networks**
Yuanhao Cao, Dongming Yan, Peter Wonka
Computers & Graphics (Proceedings of SMI). 2014.
 32. **Tensor Completion for Estimating Missing Values in Visual Data**
Ji Liu, Przemyslaw Musialski, Peter Wonka, Jieping Ye
IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013.
 33. **Generating and Exploring Good Building Layouts**
Fan Bao, Dong-Ming Yan, Niloy J. Mitra, Peter Wonka
ACM Transactions on Graphics (Proceedings of ACM SIGGRAPH), 2013.
 34. **Urban Pattern: Layout Design by Hierarchical Domain Splitting**
Yong-Liang Yang, Jun Wang, Etienne Vouga, Peter Wonka
ACM Transactions on Graphics (Proceedings of ACM SIGGRAPH ASIA), 2013.
 35. **Procedural Facade Variations from a Single Layout**
Fan Bao, Michael Schwarz, Peter Wonka
ACM Transactions on Graphics, 2013.

36. **Gap Processing for Adaptive Maximal Poisson-Disk Sampling**
Dongming Yan, Peter Wonka
ACM Transactions on Graphics, 2013.
37. **Connectivity Editing for Quad-Dominant Meshes**
Chi-han Peng, Peter Wonka
Computer Graphics Forum (Proceedings of the Symposium on Geometry Processing). 2013.
38. **Illustrating the Disassembly of 3D Models**
Jianwei Guo, Dong-Ming Yan, Er Li, Weiming Dong, Peter Wonka, Xiaopeng Zhang
Computers and Graphics (Proceedings of Shape Modeling International). 2013.
39. **A Survey of Urban Reconstruction**
Przemyslaw Musialski, Peter Wonka, Daniel G. Aliaga, Michael Wimmer, Luc van Gool, Werner Purgathofer
Computer Graphics Forum, 2013.
40. **A Framework for Interactive Image Color Editing**
Przemyslaw Musialski, *Ming Cui*, Jieping Ye, Anshuman Razdan, Peter Wonka
The Visual Computer, 2013.
41. **Interactive Coherence-Based Façade Modeling**
Przemyslaw Musialski, Michael Wimmer, Peter Wonka
Computer Graphics Forum (Proceedings of Eurographics), 2012.
42. **A Multi-Stage Framework for Dantzig Selector and LASSO**
Ji Liu, Peter Wonka, Jieping Ye
Journal of Machine Learning Research, 2012.
43. **Sparse Non-negative Tensor Factorization Using Columnwise Coordinate Decent**
Ji Liu, Jun Liu, Peter Wonka, and Jieping Ye,
Pattern Recognition, volume 45, issue 1, pages 649–656, 2012.
44. **Connectivity Editing for Quadrilateral Meshes**
Chi-Han Peng, Eugene Zhang, Yoshihiro Kobayashi, Peter Wonka
ACM Transactions on Graphics. 2011.
Proceedings of Siggraph Asia
45. **Interactive Architectural Modeling with Procedural Extrusions**
Tom Kelly, Peter Wonka
ACM Transactions on Graphics, volume 30, number 2, pages 14:1-15. 2011.
46. **Interactive Modeling of City Layouts using Layers of Procedural Content**
Markus Lipp, Daniel Scherzer, Peter Wonka, Michael Wimmer
Computer Graphics Forum, volume 30. Number 2. Pages 345-354. 2011.
Proceedings of Eurographics 2011
47. **Estimating Color and Texture Parameters for Vector Graphics**
Stefan Jeschke, David Cline, Peter Wonka
Computer Graphics Forum, volume 30. number 2. Pages 523 – 532. 2011.
Proceedings of Eurographics 2011
(best paper award: 2nd place)
48. **Geometry Synthesis on Surfaces Using Field-Guided Shape Grammars**
Yuanyuan Li, Fan Bao, Eugene Zhang, Yoshihiro Kobayashi, Peter Wonka
IEEE Transactions on Visualization and Computer Graphics, volume 17. number 2. pages 231 – 243. 2011.
49. **A New QEM for Parameterization of Raster Images**
Yin, Femiani, Wonka, Razdan
Computer Graphics Forum. 2011
50. **Editing Operations for Irregular Vertices in Triangle Meshes**
Yuanyuan Li, Eugene Zhang, Yoshihiro Kobayashi, Peter Wonka
ACM Transactions on Graphics, volume 29. number 6. Papes 153:1–11. 2010
Proceedings of Siggraph Asia
51. **Route Visualization using Detail Lenses**
Pushpak Karnick, David Cline, Stefan Jeschke, Anshuman Razdan, Peter Wonka
IEEE Transactions on Visualization and Computer Graphics, volume 16. number 2. pages 235 – 247.2010.
52. **Color to Gray Conversion Using ISOMAP**
Ming Cui, Jiuxiang Hu, Anshuman Razdan, Peter Wonka
The Visual Computer, volume 26. number 11. pages 1349 – 1360. 2010.

53. **Parallel Generation of Multiple L-Systems**
Markus Lipp, Peter Wonka, Michael Wimmer
Computers and Graphics. volume 34. number 5. Pages 585 – 593. 2010
54. **Modeling the Appearance and Behavior of Urban Spaces**
Carlos Vanegas, Daniel Aliaga, Peter Wonka, Pascal Müller, Paul Waddell, Benjamin Watson
Computer Graphics Forum, volume 29. number 1. 2010.
55. **Grammar-based Encoding of Facades**
Simon Haegler, Peter Wonka, Stefan Müller Arizona, Luc J. Van Gool, Pascal Müller
Computer Graphics Forum. volume 29. number 4. pages 1479-1487. 2010
Proceedings of EG Symposium on Rendering
56. **Adaptive Global Visibility Sampling**
Jiri Bittner, Oliver Mattausch, Peter Wonka, Vlastimil Havran, Michael Wimmer
ACM Transactions on Graphics. volume 28, number 3, article #94, pages 1-10. 2009.
Proceedings of SIGGRAPH 2009
57. **A Minimal Surface Poisson Solver for Diffusion Curves and Image Editing**
Stefan Jeschke, David Cline, Peter Wonka
ACM Transactions on Graphics. volume 28, number 5, 2009.
Proceedings of SIGGRAPH ASIA 2009
58. **Rendering Surface Details with Diffusion Curves**
Stefan Jeschke, David Cline, Peter Wonka
ACM Transactions on Graphics. volume 28, number 5, 2009.
Proceedings of SIGGRAPH ASIA 2009
59. **Compressed Façade Displacement Mapping**
Saif Ali, Jieping Ye, Anshuman Razdan, Peter Wonka
IEEE Transactions on Visualization and Computer Graphics, volume 15. number 2. pages 262-273. 2009.
60. **Interactive Hyperspectral Image Visualization Using Convex Optimization**
Ming Cui, Anshuman Razdan, Jiuxiang Hu, and Peter Wonka
IEEE Transactions on Geoscience and Remote Sensing. volume 47. number 6. pages 1673-1684. 2009.
61. **Interactive Geometric Simulation of 4D Cities**
Basil Weber, Pascal Mueller, Peter Wonka, Markus Gross
Computer Graphics Forum, volume 28, number 2. pages 481-492. 2009.
Proceedings of Eurographics 2009
62. **Dart throwing on surfaces**
David Cline, Stefan Jeschke, Anshuman Razdan, Kenric White, Peter Wonka
Computer Graphics Forum, volume 28, number 4. pages 1217-1226. 2009.
Proceedings of Eurographics Symposium on Rendering
63. **A Shape Grammar for Developing Glyph-based Visualizations**
P. Karnick, S. Jeschke, D. Cline, A. Razdan, E. Wentz, P. Wonka
Computer Graphics Forum, volume 28, number 8. Pages 2176-2188. 2009.
64. **A Comparison of Tabular PDF Inversion Methods.**
David Cline, Anshuman Razdan, Peter Wonka.
Computer Graphics Forum. volume 28. number 1. pages 154-160. 2009.
65. **GPU Rendering of Relief Mapped Concial Frusta**
Deepali Bhagvat, Stefan Jeschke, David Cline, Peter Wonka
Computer Graphics Forum, volume 28, number 8. Pages 2131-2139. 2009.
66. **Curve Matching for Open 2D Curves**
Ming Cui, *John C Femiani*, Jiuxiang Hu, Peter Wonka, Anshuman Razdan
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