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Born: January 11, 1977—Köln, Germany
Nationality: German

Current position

Deputy Head of the Innovation Center of Data Driven Design,
Senior Researcher & Research Coordinator,
Fraunhofer Austria Research GmbH, Graz, Austria

Areas of specialization

Mathematics, Computer Science, Data Analysis, Geometry, Modeling Languages

Appointments held

2009- Fraunhofer Austria Research GmbH, Graz, Austria
2005-2009 Technische Universität Graz, Austria
2002-2005 Technische Universität Braunschweig, Germany

Education

2011 PhD in Computer Science (Dr. techn.), Technische Universität Graz, Austria
2002 MSc in Mathematics (Dipl.-Math.), Universität Karlsruhe (TH), Germany

Publications & conference contributions

- 2023 Kurt Battisti, Markus Dörn, Eva Eggeling, Christoph Eichler, Jan Morten Loës, Jacqueline Scherret, Zolbayasakh Tsoggerel, and Torsten Ullrich (2023), “**An Automatic Process for the Application of Building Permits**”, *Buildings*, 13:78.
- 2022 Martin Oberascher, Andreas Halm, Torsten Ullrich, and Robert Sitzenfrei (2022), “**Analysing the influence of different temporal resolutions of water consumption data for leakage detection and localisation**”, *European Geosciences Union*, 22:EGU22-7399.
- 2022 Istvan-Szilard Szilagyi, Torsten Ullrich, Kordula Lang-Illievich, Christoph Klivinyi, Gregor Alexander Schittekk, Holger Simonis, and Helmar Bornemann-Cimenti (2022), “**Google Trends for Pain Search Terms in the World’s Most Populated Regions Before and After the First Recorded COVID-19 Case: Infodemiological Study**”, *Selected Readings in Computer Graphics 2021*, 32:22:1-12.
- 2022 Kordula Lang-Illievich, Johanna Lang, Istvan-Szilard Szilagyi, Torsten Ullrich, Jolana Wagner-Skacel, Gabriela Repiska, and Helmar Bornemann-Cimenti (2022), “**The Internet’s Interest in Autism Peaks in April: A Google Trends Analysis**”, *Journal of Autism and Developmental Disorders*, online first:tba.
- 2022 Volker Settgast, Konstantinos Kostarakos, Eva Eggeling, Manfred Hartbauer, and Torsten Ullrich (2022), “**Product Tests in Virtual Reality: Lessons Learned during Collision Avoidance Development for Drones**”, *Designs*, 6:33:1-10.
- 2022 Istvan-Szilard Szilagyi, Gregor Alexander Schittekk, Christoph Klivinyi, Holger Simonis, Torsten Ullrich, and Helmar Bornemann-Cimenti (2022), “**Citation of retracted research: a case-controlled, ten-year follow-up scientometric analysis of Scott S. Reuben’s malpractice**”, *Scientometrics*, 127:2611-2620.
- 2021 Ursula Augsdörfer and Torsten Ullrich (2021), “**Innovative Informations- und Kommunikationstechniken im digitalen Gebäude- und Baumanagement**”, *Agile Digitalisierung im Baubetrieb*, 1:151-166.
- 2021 Torsten Ullrich (2021), “**On the Autoregressive Time Series Model Using Real and Complex Analysis**”, *Forecasting*, 3:716-728.
- 2021 Torsten Ullrich (2021), “**Real-world String Comparison: How to handle Unicode sequences correctly**”, *ACM Queue*, 19:107-116.

- 2021 Istvan-Szilard Szilagyi, Torsten Ullrich, Kordula Lang-Illievich, Christoph Klivinyi, Gregor Alexander Schitte, Holger Simonis, and Helmar Bornemann-Cimenti (2021), “**Google Trends for Pain Search Terms in the World’s Most Populated Regions Before and After the First Recorded COVID-19 Case: Infodemiological Study**”, *Journal of Medical Internet Research*, 23:e27214.
- 2021 Christoph Schinko and Torsten Ullrich (2021), “**Vertex Climax: Converting Geometry into a Non-Manifold Midsurface**”, *Proceedings of the International Joint Conference on Computer Vision and Computer Graphics Theory and Applications (VISIGRAPP)*, 16:185-192.
- 2020 Ulrich Krispel, Torsten Ullrich, and Martin Tamke (2020), “**Formalizing Expert Knowledge For Building Information Models: Automated Identification Of Electrical Wiring From 3d Scans**”, *Selected Readings in Computer Graphics 2019*, 30:16:1-11.
- 2020 Kurt Battisti, Markus Dörn, Christoph Eichler, Jacqueline Scherret, and Torsten Ullrich (2020), “**Digital Planning, Construction Submission and Approval Processes in Austria**”, *Proceeding of the International Academic Conference on Places and Technologies*, 7:208-214.
- 2020 Christoph Schinko and Torsten Ullrich (2020), “**A new grid-based midsurface generation algorithm**”, *Hyperseeing – the Publication of the International Society of the Arts, Mathematics, and Architecture*, 19:81-84.
- 2020 Ulrich Krispel, Dieter W. Fellner, and Torsten Ullrich (2020), “**Distance Measurements of CAD Models in Boundary Representation**”, *Transactions on Computational Science*, XXXVI:43-63.
- 2020 Helmut Tödtmann, Matthias Vahl, Uwe Freiherr von Lukas, and Torsten Ullrich (2020), “**Time-Unfolding Object Existence Detection in Low-Quality Underwater Videos using Convolutional Neural Networks**”, *Proceedings of the International Joint Conference on Computer Vision and Computer Graphics Theory and Applications (VISIGRAPP)*, 15:370-377.
- 2020 Michael Schoosleitner and Torsten Ullrich (2020), “**Scene Understanding and 3D Imagination: A Comparison between Machine Learning and Human Cognition**”, *Proceedings of the International Joint Conference on Computer Vision and Computer Graphics Theory and Applications (VISIGRAPP)*, 15:231-238.
- 2020 René Berndt, Carl Tuemmler, Christian Kehl, Mario Aehnelt, Tim Grasser, Andreas Franek, and Torsten Ullrich (2020), “**Open Problems in 3D Model and Data Management**”, *Proceedings of the International Joint Conference on Computer Vision and Computer Graphics Theory and Applications (VISIGRAPP)*, 15:347-354.

- 2019 Christoph Schinko, Ulrich Krispel, Robert Gregor, Tobias Schreck, and Torsten Ullrich (2019), “**Generative Modellierung – Verknüpfung von Wissen und Form (Chapter 3)**”, *Computing in Art and Architecture: Der Modelle Tugend 2.0 – Digitale 3D-Rekonstruktion als virtueller Raum der architekturhistorischen Forschung*, 2:295-311.
- 2019 Ulrich Krispel, Torsten Ullrich, and Martin Tamke (2019), “**Formalizing Expert Knowledge For Building Information Models: Automated Identification Of Electrical Wiring From 3d Scans (Chapter 27)**”, *Keeping Up with Technologies to Create the Cognitive City*, 2:318-328.
- 2018 Ulrich Krispel, Dieter W. Fellner, and Torsten Ullrich (2018), “**A Benchmark For Distance Measurements**”, *Proceedings of the International Conference on Cyberworlds*, 16:120-125.
- 2018 Ulrich Krispel, Hendrik Leander Evers, Martin Tamke, and Torsten Ullrich (2018), “**Data Completion In Building Information Management: Electrical Lines From Range Scans And Photographs**”, *Selected Readings in Computer Graphics 2017*, 28:11:1-11.
- 2018 Christoph Schinko, Andreas Riffnaller-Schiefer, Ulrich Krispel, Eva Eggeling, and Torsten Ullrich (2018), “**State-of-the-art Overview On 3d Model Representations And Transformations In The Context Of Computer-Aided Design**”, *Selected Readings in Computer Graphics 2017*, 28:29:1-13.
- 2017 Christoph Schinko, Andreas Riffnaller-Schiefer, Ulrich Krispel, Eva Eggeling, and Torsten Ullrich (2017), “**State-of-the-art Overview On 3d Model Representations And Transformations In The Context Of Computer-Aided Design**”, *International Journal On Advances in Software*, 10:446-458.
- 2017 Christoph Schinko, Markus Peer, Daniel Hammer, Matthias Pirstinger, Cornelia Lex, Ioana Koglauer, Arno Eichberger, Jürgen Holzinger, Eva Eggeling, Dieter W. Fellner, and Torsten Ullrich (2017), “**Building a Driving Simulator with Parallax Barrier Displays**”, *Selected Readings in Computer Graphics 2016*, 27:29:1-9.
- 2017 Daniel Ladenhauf, Kurt Battisti, René Berndt, Eva Eggeling, Dieter W. Fellner, Markus Gratzl-Michlmair, and Torsten Ullrich (2017), “**Computational Geometry in the Context of Building Information Modeling**”, *Selected Readings in Computer Graphics 2016*, 27:18:1-7.
- 2017 Ulrich Krispel, Hendrik Leander Evers, Martin Tamke, and Torsten Ullrich (2017), “**An Automatic Hypothesis of Electrical Lines from Range Scans and Photographs**”, *Selected Readings in Computer Graphics 2016*, 27:17:1-8.

- 2017 Michael Hund, Dominic Böhm, Werner Sturm, Michael Sedlmair, Tobias Schreck, Torsten Ullrich, Daniel A. Keim, Ljiljana Majnaric, and Andreas Holzinger (2017), **“Visual Analytics for Concept Exploration in Subspaces of Patient Groups”**, *Selected Readings in Computer Graphics 2016*, 27:14:1-15.
- 2017 Ulrich Krispel, Martin Tamke, and Torsten Ullrich (2017), **“Coloured Point Clouds From In-built Cameras”**, *GIM International*, 31:33-35.
- 2017 Christoph Schinko, Ulrich Krispel, Eva Eggeling, and Torsten Ullrich (2017), **“3D Model Representations and Transformations in the Context of Computer-Aided Design: a State-of-the-Art Overview”**, *Proceedings of the International Conference on Advances in Multimedia*, 9:10-15.
- 2017 Ulrich Krispel, Henrik Leander Evers, Martin Tamke, and Torsten Ullrich (2017), **“Data Completion in Building Information Management: Electrical Lines from Range Scans and Photographs”**, *Visualization in Engineering*, 5:1-11.
- 2017 Christoph Schinko, Thomas Vosgien, Thorsten Prante, Tobias Schreck, and Torsten Ullrich (2017), **“Search and Retrieval in CAD Databases – a User-centric State-of-the-Art Overview”**, *Proceedings of the International Joint Conference on Computer Vision and Computer Graphics Theory and Applications (VISIGRAPP)*, 12:306-313.
- 2016 Ulrich Krispel, Christoph Schinko, and Torsten Ullrich (2016), **“A Survey of Algorithmic Shapes”**, *Remote Sensed Data and Processing Methodologies for 3D Virtual Reconstruction and Visualization of Complex Architecture*, 219:498-529.
- 2016 Ulrich Krispel, Hendrik Leander Evers, Martin Tamke, and Torsten Ullrich (2016), **“An Automatic Hypothesis of Electrical Lines from Range Scans and Photographs”**, *Proceedings of the International Conference on Computing in Civil and Building Engineering (ICCCBE)*, 6:815-822.
- 2016 Ulrich Krispel, Christoph Schinko, and Torsten Ullrich (2016), **“A Survey of Algorithmic Shapes”**, *Selected Readings in Computer Graphics 2015*, 26:22:1-29.
- 2016 Torsten Ullrich (2016), **“Peer Review-Assisted Learning: Teaching Software Design Engineering using Student Peer Review in a Lecture”**, *Proceedings of Global Learn 2016*, 5:207-215.
- 2016 Ulrich Krispel, Torsten Ullrich, and Martin Tamke (2016), **“Under the Skin – Determining Electrical Appliances form Surface 3D Scans”**, *Proceeding of the International Academic Conference on Places and Technologies*, 3:77-84.

- 2016 Michael Hund, Dominic Böhm, Werner Sturm, Michael Sedlmair, Tobias Schreck, Torsten Ullrich, Daniel A. Keim, Ljiljana Majnaric, and Andreas Holzinger (2016), **“Visual Analytics for Concept Exploration in Subspaces of Patient Groups”**, *Brain Informatics*, 3:233-247.
- 2016 Daniel Ladenhauf, Kurt Battisti, René Berndt, Eva Eggeling, Dieter W. Fellner, Markus Gratzl-Michlmair, and Torsten Ullrich (2016), **“Computational Geometry in the Context of Building Information Modeling”**, *Energy & Buildings*, 115:78-84.
- 2016 Christoph Schinko, Markus Peer, Daniel Hammer, Matthias Pirstinger, Cornelia Lex, Ioana Koglbauer, Arno Eichberger, Jürgen Holzinger, Eva Eggeling, Dieter W. Fellner, and Torsten Ullrich (2016), **“Building a Driving Simulator with Parallax Barrier Displays”**, *Proceedings of the International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (GRAPP 2016)*, 11:283-291.
- 2015 Nelson Silva, Volker Settgast, Eva Eggeling, Torsten Ullrich, Tobias Schreck, and Dieter W. Fellner (2015), **“Increasing Fault Tolerance in Operational Centres using Human Sensing Technologies: Approach and Initial Results”**, *European Project Space on Computer Vision, Graphics, Optics and Photonics*, 1:25-49.
- 2015 Torsten Ullrich, and Dieter W. Fellner (2015), **“Statistical Analysis on Global Optimization”**, *Selected Readings in Computer Graphics 2014*, 24:37:1-8.
- 2015 Ioana Victoria Koglbauer, Arno Eichberger, Cornelia Lex, Jürgen Holzinger, Christoph Schinko, and Torsten Ullrich (2015), **“Evaluation of an adaptive cruise control system in real traffic and in a driving simulator”**, *Proceedings of the Annual Conference of the Europe Chapter of the Human Factors and Ergonomics Society*, Poster:6.
- 2015 Ulrich Krispel, Christoph Schinko, Torsten Ullrich (2015), **“A Survey of Algorithmic Shapes”**, *Remote Sensing*, 7:12763-12792.
- 2015 Michael Hund, Werner, Tobias Schreck, Torsten Ullrich, Daniel Keim, Ljiljana Majnaric, and Andreas Holzinger (2015), **“Analysis of Patient Groups and Immunization Results Based on Subspace Clustering”**, *Proceedings of Brain and Health Informatics (BIH 2015)*, *Lecture Notes in Artificial Intelligence (LNAI)*, 8:358-368.
- 2015 Werner Sturm, Tobias Schreck, Andreas Holzinger, and Torsten Ullrich (2015), **“Discovering Medical Knowledge Using Visual Analytics”**, *Proceedings of Eurographics Workshop on Visual Computing for Biology and Medicine*, 5:71-81.

- 2015 Werner Sturm, Till Schäfer, Tobias Schreck, Andreas Holzinger, and Torsten Ullrich (2015), **“Extending the Scaffold Hunter Visualization Toolkit with Interactive Heatmaps”**, *Proceedings of Computer Graphics and Visual Computing*, 2:77-84.
- 2015 Ioana Koglbauer, Arno Eichberger, Cornelia Lex, Jürgen Holzinger, Christoph Schinko, and Torsten Ullrich (2015), **“A Model for Subjective Evaluation of Automated Vehicle Control”**, *Proceeding of the International Symposium on Aviation Psychology*, 18:PW12.
- 2015 Christoph Schinko, Ulrich Krispel, and Torsten Ullrich (2015), **“Know the Rules – Tutorial on Procedural Modeling”**, *Proceedings of the International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (GRAPP 2015, Tutorial Notes)*, 10:27ff.
- 2015 Harald Grabner, Torsten Ullrich, and Dieter W. Fellner (2015), **“Generative Training for 3D-Retrieval”**, *Proceedings of the International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (GRAPP 2015)*, 10:97-105.
- 2015 Christoph Schinko, Ulrich Krispel, Torsten Ullrich, and Dieter W. Fellner (2015), **“Built by Algorithms – State of the Art Report on Procedural Modeling”**, *Proceeding of the International Workshop on 3D Virtual Reconstruction and Visualization of Complex Architectures (3D-ARCH)*, 6:469-479.
- 2015 Martin Schrottner, Torsten Ullrich, Pedro Santos, and Dieter W. Fellner (2015), **“3D Mass Digitization and Management of Cultural Heritage Artifacts”**, *Unser digitales Gedächtnis – Fachtagung “Digitale Bibliotheken”*, 5:3:1-7.
- 2014 Daniel Ladenhauf, René Berndt, Ulrich Krispel, Eva Eggeling, Torsten Ullrich, Kurt Battisti, and Markus Gratzl-Michlmair (2014), **“Geometry Simplification According to Semantic Constraints”**, *Computer Science - Research and Development (Proceedings of IEEE / OCG Energy Informatics)*, 71:1-7.
- 2014 Torsten Ullrich and Dieter W. Fellner (2014), **“Statistical Analysis on Global Optimization”**, *Proceeding of the International Conference on Mathematics and Computers in Sciences and Industry*, 978-1-4799-4744-7:99-106.
- 2014 Torsten Ullrich, Nelson Silva, Eva Eggeling, and Dieter W. Fellner (2014), **“Generative Modeling and Numerical Optimization for Energy Efficient Buildings”**, *Selected Readings in Computer Graphics 2013*, 24:36:1-6.
- 2014 Torsten Ullrich, Christoph Schinko, Thomas Schiffer, and Dieter W. Fellner (2014), **“Procedural Descriptions for Analyzing Digitized Artifacts”**, *Selected Readings in Computer Graphics 2013*, 24:35:1-8.

- 2014 Harald Grabner, Torsten Ullrich, and Dieter W. Fellner (2014), **“Content-based Retrieval of 3D Models using Generative Modeling Techniques”**, *Proceedings of EUROGRAPHICS Workshop on Graphics and Cultural Heritage (Short Papers / Posters)*, 12:9-12.
- 2014 Werner Sturm, René Berndt, Andreas Halm, Torsten Ullrich, Eva Eggeling, and Dieter W. Fellner (2014), **“Time-based Visualization of Large Data-Sets – An Example in the Context of Automotive Engineering”**, *International Journal On Advances in Software*, 7:139-149.
- 2014 Ulrich Krispel, Torsten Ullrich, and Dieter W. Fellner (2014), **“Fast and Exact Plane-Based Representation for Polygonal Meshes”**, *Proceeding of the International Conference on Computer Graphics, Visualization, Computer Vision and Image Processing*, 8:189-196.
- 2014 Christoph Schinko, Torsten Ullrich, and Dieter W. Fellner (2014), **“Modeling with High-Level Descriptions and Low-Level Details”**, *Proceeding of the International Conference on Computer Graphics, Visualization, Computer Vision and Image Processing*, 8:328-332.
- 2014 Ulrich Krispel, Christoph Schinko, and Torsten Ullrich (2014), **“The Rules Behind – Tutorial on Generative Modeling”**, *Proceedings of Symposium on Geometry Processing / Graduate School (SGP)*, 12:2:1-2:49.
- 2014 Daniel Ladenhauf, Kurt Battisti, René Berndt, Markus Gratzl-Michlmair, and Torsten Ullrich (2014), **“From Building Information Models to Simplified Geometries for Energy Performance Simulation”**, *Proceeding of the International Academic Conference on Places and Technologies*, 1:669-676.
- 2014 Patrick Knöbelreiter, René Berndt, Torsten Ullrich, and Dieter W. Fellner (2014), **“Automatic fly-through Camera Animations for 3D Architectural Repositories”**, *Proceedings of the International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (GRAPP 2014)*, 9:335-341.
- 2013 Torsten Ullrich and Christoph Schinko (2013), **“Bibliotheksdiene und semantische Auszeichnungen für digitale Artefakte”**, *Kulturelles Erbe in der Cloud – Fachtagung “Digitale Bibliotheken”*, 4:68ff.
- 2013 Torsten Ullrich, Nelson Silva, Eva Eggeling, and Dieter W. Fellner (2013), **“Generative Modeling and Numerical Optimization for Energy Efficient Buildings”**, *Proceedings of IEEE / OCG Energy Informatics*, 2:123-128.

- 2013 Torsten Ullrich, and Sandra Sendra (eds) (2013), “**Fourth International Conference on Computational Logics, Algebras, Programming, Tools, and Benchmarking**”, *Curran Associates, Inc.*, 4:1-53.
- 2013 Torsten Ullrich, Christoph Schinko, Thomas Schiffer, and Dieter W. Fellner (2013), “**Procedural Descriptions for Analyzing Digitized Artifacts**”, *Applied Geomatics*, 5:185-192.
- 2013 Werner Sturm, René Berndt, Andreas Halm, Torsten Ullrich, Eva Eggeling, and Dieter W. Fellner (2013), “**Energy Balance: A web-based Visualization of Energy for Automotive Engineering using X3DOM**”, *Proceeding of the International Conference on Creative Content Technologies (CONTENT)*, 5:1:10.
- 2013 Eva Eggeling, Andreas Halm, Dieter W. Fellner, and Torsten Ullrich (2013), “**Optimization of an Autostereoscopic Display for a Driving Simulator**”, *Proceedings of the International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (GRAPP 2013)*, 8:318-326.
- 2013 Eva Eggeling, Dieter W. Fellner, and Torsten Ullrich (2013), “**Probability of Globality**”, *Proceedings of the International Conference on Computer and Applied Mathematics (ICCAM 2013)*, 34:144-148.
- 2012 Torsten Ullrich and Dieter W. Fellner (2012), “**Linear Algorithms in Sublinear Time – a tutorial on statistical estimation**”, *Selected Readings in Computer Graphics 2011*, 22:32:1-9.
- 2012 Christoph Schinko, Martin Strobl, Torsten Ullrich, and Dieter W. Fellner (2012), “**Scripting Technology for Generative Modeling**”, *Selected Readings in Computer Graphics 2011*, 22:29:1-19.
- 2012 Christoph Schinko, Torsten Ullrich, and Dieter W. Fellner (2012), “**Minimally Invasive Interpreter Construction – How to reuse a compiler to build an interpreter**”, *Proceedings of the International Conference on Computational Logics, Algebras, Programming, Tools, and Benchmarking (Computation Tools)*, 3:38-44.
- 2012 Torsten Ullrich, and Pascal Lorenz (eds) (2012), “**Third International Conference on Computational Logics, Algebras, Programming, Tools, and Benchmarking**”, *Curran Associates, Inc.*, 3:1-57.
- 2012 Sven Havemann, Torsten Ullrich, and Dieter W. Fellner (2012), “**The Meaning of Shape and some Techniques to Extract It**”, *Multimedia Information Extraction*, 1:81-98.

- 2011 Christoph Schinko, Martin Strobl, Torsten Ullrich, and Dieter W. Fellner (2011), **“Scripting Technology for Generative Modeling”**, *International Journal On Advances in Software*, 4:308–326.
- 2011 Torsten Ullrich (2011), **“Reconstructive Geometry”**, *PhD-Thesis, Technische Universität Graz, Austria*, <http://diglib.eg.org/handle/10.2312/8273:1-322>.
- 2011 Christoph Schinko, Torsten Ullrich, and Dieter W. Fellner (2011), **“Simple and Efficient Normal Encoding with Error Bounds”**, *Proceedings of Theory and Practice of Computer Graphics*, 29:63–66.
- 2011 Thomas Schiffer, Christoph Schinko, Torsten Ullrich, and Dieter W. Fellner (2011), **“Real-World Geometry and Generative Knowledge”**, *The European Research Consortium for Informatics and Mathematics (ERCIM) News*, 86:15–16.
- 2011 Christoph Schinko, Martin Strobl, Torsten Ullrich, and Dieter W. Fellner (2011), **“Modeling Procedural Knowledge – a generative modeler for cultural heritage”**, *Selected Readings in Computer Graphics 2010*, 21:107–115.
- 2011 Torsten Ullrich and Dieter W. Fellner (2011), **“Generative Object Definition and Semantic Recognition”**, *Proceedings of the Eurographics Workshop on 3D Object Retrieval*, 4:1–8.
- 2011 Torsten Ullrich and Dieter W. Fellner (2011), **“Linear Algorithms in Sublinear Time – a tutorial on statistical estimation”**, *IEEE Computer Graphics and Applications*, 31:58–66.
- 2011 Frank Breuel, René Berndt, Torsten Ullrich, Eva Eggeling, and Dieter W. Fellner (2011), **“Mate in 3D – Publishing Interactive Content in PDF3D”**, *Publishing in the Networked World: Transforming the Nature of Communication, Proceedings of the International Conference on Electronic Publishing*, 15:110–119.
- 2011 Christoph Schinko, Torsten Ullrich, Thomas Schiffer, and Dieter W. Fellner (2011), **“Variance Analysis and Comparison in Computer-Aided Design”**, *Proceedings of the International Workshop on 3D Virtual Reconstruction and Visualization of Complex Architectures*, XXXVIII-5/W16:3B21–25.
- 2010 Torsten Ullrich, Volker Settgast, and René Berndt (2010), **“Semantic Enrichment for 3D Documents: Techniques and Open Problems”**, *Publishing in the Networked World: Transforming the Nature of Communication, Proceedings of the International Conference on Electronic Publishing*, 14:374–384.
- 2010 Torsten Ullrich, Christoph Schinko, and Dieter W. Fellner (2010), **“Procedural Modeling in Theory and Practice”**, *Poster Proceedings of the 18th WSCG International Conference on Computer Graphics, Visualization and Computer Vision*, 18:5–8.

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- 2010 Martin Strobl, Christoph Schinko, Torsten Ullrich, and Dieter W. Fellner (2010), “**Euclides – A JavaScript to PostScript Translator**”, *Proceedings of the International Conference on Computational Logics, Algebras, Programming, Tools, and Benchmarking (Computation Tools)*, 1:14–21.
- 2010 Christoph Schinko, Martin Strobl, Torsten Ullrich, and Dieter W. Fellner (2010), “**Modeling Procedural Knowledge – a generative modeler for cultural heritage**”, *Proceedings of EUROMED 2010 - Lecture Notes on Computer Science*, 6436:153–165.
- 2010 Thomas Schiffer, Andreas Schiefer, René Berndt, Torsten Ullrich, Volker Settgast, and Dieter W. Fellner (2010), “**Enlightened by the Web – A service-oriented architecture for real-time photorealistic rendering**”, *Kongress Multimediatechnik*, 5:41–48.
- 2010 Andreas Schiefer, René Berndt, Torsten Ullrich, Volker Settgast, and Dieter W. Fellner (2010), “**Service-Oriented Scene Graph Manipulation**”, *Proceedings of the 15th International Conference on Web 3D Technology*, 15:55–62.
- 2009 Torsten Ullrich, Volker Settgast, Christian Ofenböck, and Dieter W. Fellner (2009), “**Short Paper: Desktop Integration in Graphics Environments**”, *Proceedings of the 2009 Joint Virtual Reality Conference of Eurographics Symposium on Virtual Environments (EGVE), International Conference on Artificial Reality and Telexistence (ICAT), and EuroVR (INTUITION) Conference*, 15:109–112.
- 2009 Torsten Ullrich, Volker Settgast, and Dieter W. Fellner (2009), “**Semantic Fitting and Reconstruction**”, *Selected Readings in Computer Graphics 2008*, 19:69–84.
- 2009 Christoph Fünfzig, Torsten Ullrich, Dieter W. Fellner, and Edward N. Bachelder (2009), “**Terrain and Model Queries Using Scalar Representation With Wavelet Compression**”, *IEEE Transactions on Instrumentation and Measurement*, 58:3079–3085.
- 2008 Markus Steiner, Philipp Reiter, Christian Ofenböck, Volker Settgast, Torsten Ullrich, Marcel Lancelle, and Dieter W. Fellner (2008), “**Intuitive Navigation in Virtual Environments**”, *Proceedings of Eurographics Symposium on Virtual Environments*, 14:5–8.
- 2008 Torsten Ullrich, Torsten Techmann, and Dieter W. Fellner (2008), “**Web-based Algorithm Tutorials in Different Learning Scenarios**”, *World Conference on Educational Multimedia, Hypermedia and Telecommunications (ED-Media)*, 20:5467–5472.

- 2008 Torsten Ullrich, Ulrich Krispel, and Dieter W. Fellner (2008), “**Compilation of Procedural Models**”, *Proceeding of the 13th International Conference on 3D Web Technology*, 13:75–81.
- 2008 Torsten Ullrich, Volker Settgast, and Dieter W. Fellner (2008), “**Semantic Fitting and Reconstruction**”, *Journal on Computing and Cultural Heritage*, 1(2):1201–1220.
- 2008 Torsten Ullrich, Volker Settgast, and Dieter W. Fellner (2008), “**Abstand: Distance Visualization for Geometric Analysis**”, *Project Paper Proceedings of the Conference on Virtual Systems and MultiMedia Dedicated to Digital Heritage (VSMM)*, 14:334–340.
- 2007 Christoph Fünfzig, Torsten Ullrich, Dieter W. Fellner, and Edward N. Bachelder (2007), “**Empirical Comparison of Data Structures for Line of Sight Computation**”, *Proceedings of IEEE International Symposium on Intelligent Signal Processing (WISP) 2007*, 1:291–296.
- 2007 Volker Settgast, Torsten Ullrich, and Dieter W. Fellner (2007), “**Information Technology for Cultural Heritage**”, *IEEE Potentials*, 26(4):38–43.
- 2007 Torsten Ullrich, Volker Settgast, Ulrich Krispel, Christoph Fünfzig, and Dieter W. Fellner (2007), “**Distance Calculation between a Point and a Subdivision Surface**”, *Proceedings of 2007 Vision, Modeling and Visualization (VMV)*, 1:161–169.
- 2007 Torsten Ullrich, Christoph Fünfzig, and Dieter W. Fellner (2007), “**Two Different Views On Collision Detection**”, *IEEE Potentials*, 26(1):26–30.
- 2007 Torsten Ullrich and Dieter W. Fellner (2007), “**Robust Shape Fitting and Semantic Enrichment**”, *Proceedings of the 2007 International Symposium of the International Committee for Architectural Photogrammetry (CIPA)*, 21:727–732.
- 2007 Torsten Ullrich and Dieter W. Fellner (2007), “**Client-Side Scripting in Blended Learning Environments**”, *The European Research Consortium for Informatics and Mathematics (ERCIM) News*, 71:43–44.
- 2006 Christoph Fünfzig, Torsten Ullrich, and Dieter W. Fellner (2006), “**Hierarchical Spherical Distance Fields for Collision Detection**”, *Computer Graphics and Applications*, 26(1):64–74.
- 2006 Marcel Lancelle, Lars Offen, Torsten Ullrich, Torsten Techmann, and Dieter W. Fellner (2006), “**Minimally Invasive Projector Calibration for 3D Applications**”, *Proceedings of 3. Workshop Virtuelle und Erweiterte Realität der GI-Fachgruppe VR/AR*, 1(1):1–9.
- 2005 Torsten Ullrich and Dieter W. Fellner (2005), “**Computer Graphics Courseware**”, *Proceedings of Eurographics 2005 Education*, 1:11–17.

- 2004 Torsten Ullrich and Dieter W. Fellner (2004), “**Modulare Inhaltserzeugung nach dem Baukastenprinzip**”, *DeLF1 2004: Die e-Learning Fachtagung der Gesellschaft für Informatik 2004*, 52:405–406.
- 2004 Torsten Ullrich and Dieter W. Fellner (2004), “**AlgoViz - a Computer Graphics Algorithm Visualization Toolkit**”, *World Conference on Educational Multimedia, Hypermedia and Telecommunications (ED-Media)*, 16:941–948.

Teaching: Supervised & Co-Supervised Students (final assignments)

- 2023 Ajla Harcevic (2023), **“Object Detection and Object Tracking in Traffic Surveillance”**, *Bachelor Thesis*, 01/23:1–42.
- 2023 Mario Wellik (2023), **“Data Extraction Tool “Dex”: Providing useful Search algorithms over a Web API”**, *Bachelor Thesis*, 01/23:1–26.
- 2022 Ante Suzanj (2022), **“Analysis of Time Series Data”**, *Bachelor Thesis*, 11/22:1–39.
- 2022 Mathias Punkenofer (2022), **“Data Extraction Tool “Dex”: Developing a Modern Web App for Data Extraction Tasks”**, *Bachelor Thesis*, 10/22:1–24.
- 2022 Felix Windisch (2022), **“Voxel Grid Iterators for Distance Measurement to Planes and Lines in 3D Space”**, *Bachelor Thesis*, 5/22:1–46.
- 2022 Florian D. Steinwidder (2022), **“Time Series Clustering”**, *Bachelor Thesis*, 2/22:1–24.
- 2020 Aleksa Pandurevic (2020), **“Design and Development of a Co-Simulation Framework for Testing and Validation of Automated Driving Functions”**, *Bachelor Thesis*, 3/20:1–58.
- 2019 Helmut Toedtmann (2019), **“Detection and Localisation of Sea Trout in Underwater Videos with Neural Networks”**, *Bachelor Thesis*, 12/19:1–48.
- 2019 Michael Schoosleitner (2019), **“Augmented Reality Construction System”**, *Master Thesis*, 11/19:1–77.
- 2018 Christoph Schinko (2018), **“Shape Processing for Content Generation”**, *PhD Thesis*, 01/18:1–213.
- 2017 Philipp Purgaj (2017), **“Weblösung für visuelle Darstellung von mehrdimensionalen Daten”**, *Bachelor Thesis*, 12/17:1–48.
- 2017 Dusan Malic (2017), **“Implementation of Traffic Simulation in Driving Simulator”**, *Bachelor Thesis*, 8/17:1–44.
- 2017 Mustafa Mahmoud (2017), **“Webbasiertes CAD Modellieren”**, *Bachelor Thesis*, 6/17:1–21.
- 2017 Michael Pranter (2017), **“Compression of Animated Meshes”**, *Bachelor Thesis*, 2/17:1–8.

- 2016 Lukas Trötzmüller (2016), “A Pipeline Approach for Viewpoint Interpolation of Panoramic Images”, *Bachelor Thesis*, 2/16:1–111.
- 2016 Dominik Mocher (2016), “A Graphical User Interface for GINGER”, *Bachelor Thesis*, 2/16:1–34.
- 2015 Franz Papst (2015), “Generative Modelling and Hypertext Markup Language 5th revision (HTML 5)”, *Bachelor Thesis*, 6/15:1–8.
- 2015 Werner Sturm (2015), “Discovering Medical Knowledge Using Visual Analytics”, *Master Thesis*, 5/15:1–138.
- 2014 Daniel Ladenhauf (2014), “From Building Information Models to Simplified Geometries for Energy Performance Calculation”, *Master Thesis*, 9/14:1–75.
- 2013 Harald Grabner (2013), “Content Based Retrieval of 3D Models using Generative 3D Models”, *Master Thesis*, 9/13:1–65.
- 2013 Werner Sturm (2013), “Energy Balance: A web-based Visualization of Energy for Automotive Engineering using X3DOM”, *Bachelor Thesis*, 1/13:1–22.
- 2011 Christoph Wiesmeier (2011), “Ray Tracing Point Clouds”, *Bachelor Thesis*, 11/11:1–19.
- 2011 Harald Grabner (2011), “Visualization of the Gaussian Curvature on Triangle Meshes”, *Bachelor Thesis*, 10/11:1–33.
- 2010 Andreas Schiefer (2010), “Web Service Integration Into OpenSG”, *Master Thesis*, 09/10:1–61.
- 2009 Christoph Schinko (2009), “Integrated Development Environment for Procedural Modeling”, *Master Thesis*, 05/09:1–82.
- 2008 Ulrich Krispel (2008), “Optimization Techniques for Generative Model Evaluation”, *Master Thesis*, 04/08:1–73.
- 2008 Reinhold Preiner (2008), “Adaption der Grafikausgabe eines First-Person-Shooters für den Betrieb in einer virtuellen Umgebung”, *Bachelor Thesis*, 02/08:1–63.
- 2008 Andreas Schiefer (2008), “Abfangen von OpenGL-Aufrufen unter Linux”, *Bachelor Thesis*, 02/08:1–28.

2006

Kai Wilckens (2006), “**Generative Texturmodifikationen zur Erhöhung des Realitätsgrades großer Szenen**”, *Master Thesis*, 05/06:1–166.

Teaching: Lectures

- 2016–2023 Lecture “Geometric 3D-Modeling in Computer Graphics”, Technische Universität Graz, Austria.
- 2022 Guest Lecture “Data Engineering: Introduction Time Series”, FH Kärnten (March, 31st 2022).
- 2021 Tutorial “Introduction to the Data Analysis of Time Series”, DATA 2021 (July, 6th 2021).
- 2019 Lecture “Selected Topics Computer Graphics”, Technische Universität Graz, Austria.
- 2019 Design Practical “Selected Topics Computer Graphics”, Technische Universität Graz, Austria.
- 2014–2015 Lecture “Design and Development of Large Systems”, Technische Universität Graz, Austria.
- 2015 Tutorial “Know the Rules – Tutorial on Procedural Modeling”, GRAPP 2015 (March, 11th 2015).
- 2014 Graduate School “Tutorial on Generative Modeling”, Symposium on Geometry Processing 2014 (July, 7th 2014).
- 2011–2013 Lecture “Simulation and Animation”, Technische Universität Graz, Austria.
- 2006/07 Lecture “Computer-Aided Geometric Design”,
–2009/10 Technische Universität Graz, Austria.
- 2005/06 Exercise Course “Modeling in computer graphics”, Technische Universität Graz, Austria.
- 2004/05 Exercise Course “Geometric concepts in computer-aided geometric design”, Technische Universität Braunschweig, Germany.
- 2004 Lecture “Curves and surfaces in computer-aided geometric design”, Technische Universität Braunschweig, Germany.
- 2003/04 Exercise Course “Geometric concepts in computer-aided geometric design”, Technische Universität Braunschweig, Germany.
- 2003 Exercise Course “Modeling in computer graphics”, Technische Universität Braunschweig, Germany.

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