Hui Wang

Visual Computing Center (VCC), King Abdullah University of Science and Technology (KAUST), Jeddah, Saudi Arabia

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Research Interest

Mainly lie in architectural geometry, computational geometry, discrete differential geometry, geometry processing, etc.

Education

TU Wien — *Vienna, Austria*

Joint PhD (supported by CSC) in Institute of Discrete Mathematics and Geometry — *Sep. 2017 - Oct. 2019*

Supervisior: Prof. Helmut Pottmann

Dalian University of Technology (DUT) — *Dalian,China*

PhD in School of Mathematical Sciences — *Sep. 2015 - Mar. 2020*

Supervisior: Prof. Chungang Zhu

Dalian University of Technology (DUT) — *Dalian,China*

MS in School of Mathematical Sciences — *Sep. 2013 - Oct. 2015*

Supervisior: Prof. Zhonghua Hou

Jilin Normal University — *Siping,China*

BS in Mathematics and Applied Mathematics — *Sep. 2009 - Oct. 2013*

Publication

- **Architectural Freeform Surfaces Designed for Cost-effective Paneling Through Mold Re-use**

  Advances in Architectural Geometry (AAG), 2020. *2020*

  Davide Pellis, Martin Kilian, **Hui Wang**, Caigui Jiang, Christian Müller, Helmut Pottmann.

- **Principal Symmetric Meshes**

  ACM Trans. Graphics, SIGGRAPH, 2020. *2020*

  Davide Pellis*, **Hui Wang***, Martin Kilian, Florian Rist, Helmut Pottmann, Christian Müller (*joint first author).

- **Discrete Geodesic Parallel Coordinates**

  ACM Trans. Graphics, SIGGRAPH ASIA, 2019. *2019*

  Hui Wang, Davide Pellis, Florian Rist, Helmut Pottmann, Christian Müller.

- **Design and Construction of Curved Support Structures with Repetitive Parameters**

  Advances in Architectural Geometry (AAG), 2018. *2018*

  Eike Schling, Martin Kilian, **Hui Wang**, Jonas Schikore, and Helmut Pottmann.

- **Curved Support Structures and Meshes with Spherical Vertex Stars**

  ACM Trans. Graphics, SIGGRAPH Poster, 2018. *2018*

  Martin Kilian, **Hui Wang**, Eike Schling, Jonas Schikore, and Helmut Pottmann.

- **Construction of B-spline surface from Cubic B-spline Asymptotic Quadrilateral**

  Journal of Advanced Mechanical Design, Systems, and Manufacturing (JSME). *2017*

  Hui Wang, Chungang Zhu, and Caiyun Li.

- **The Design of Bézier Surface Through Quintic Bézier Asymptotic Quadrilateral**

  Journal of Computational Mathematics (JCM). *2017*

  Hui Wang, Chungang Zhu, and Caiyun Li.

- **Construction of Rational Bézier Surface Interpolating Asymptotic Quadrilateral**

  Jisuanji Fuzhu Sheji Yu Tuxingxue Xuebao/Journal of Computer-Aided Design and Computer Graphics. *2017*

  Hui Wang, Chungang Zhu, and Caiyun Li.

- **Identification of Planar Sextic Pythagorean-Hodograph Curves**
  Journal of Mathematical Research with Applications. *2016*
  Hui Wang, Chungang Zhu, and Caiyun Li.
- **G^2 Hermite Interpolation by Pythagorean Hodograph of Degree Six**
  Journal of Graphics. *2016*
  Hui Wang, Chungang Zhu, and Caiyun Li.

Conference and Selected Talks

- **SIGGRAPH ASIA 2019** *Brisbane, Austrilia*
  Discrete Geodesic Parallel Coordinates *Nov.17-20 2019*
  Presenter
- **Fifth Symposium on Geometry and Computational Design(GCD) 2018** *Vienna, Austria*
  TU Wien *Oct.25, 2018*
  Attendee
- **Advances in Architectural Geometry (AAG) 2018** *Gothenburg, Sweden*
  Chalmers University of Technology *Sep.22-25, 2018*
  Attendee
- **Fourth Symposium on Geometry and Computational Design(GCD) 2017** *Vienna, Austria*
  TU Wien *Nov.17, 2017*
  Attendee
- **Computer Mathematics (CM) 2016** *Shenzhen, China*
  Construction of Bezier Surface by Bezier Asymptotic Quadrilateral *Nov.11-13, 2016*
  Presenter (in Chinese)
- **Asian Conference on Design and Digital Engineering 2016** *Jeju, Korea*
  Construction of B-spline Surface from Cubic B-spline Asymptotic Quadrilateral *Oct.25-28, 2016*
  Presenter
- **International Conference on Information and Computational Science (ICICS) 2016** *Dalian, China*
  Dalian University of Technology *Aug.2-6, 2016*
  Attendee
- **CSIAM Geometric Design and Computing (GDC) 2016** *Hefei, China*
  University of Science and Technology of China *July 16-18, 2016*
  Attendee
- **CSIAM Geometric Design and Computing (GDC) 2015** *Hangzhou, China*
  G^2 Hermite Interpolation by Pythagorean Hodograph of Degree Six *Aug.22-24, 2015*
  Presenter (in Chinese)

Skills

- **Programming**: Python, Matlab, Maple
- **Software Tools**: Rhinoceros, Blender, GIMP, Meshlab
- **Language**: Chinese (native), English, German (beginner)

Reference

- **Prof. Helmut Pottmann**: Full Professor, KAUST and TU Wien, Austria.
- **Ass.Prof. Christian Müller**: Assistant Professor, TU Wien, Austria.
- **Dr. Martin Kilian**: Assistant, TU Wien, Austria.
- **Prof. Chungang Zhu**, **Prof. Zhonghua Hou**: Full Professor, DUT, China.