

Ann-Sofie Fisker

Curriculum Vitae

Runebakken 8
3540 Lyngby, Denmark
☎ +45 60 51 37 26
✉ ansofi@dtu.dk
🌐 afisker.com

Driven mathematician with doctoral level experience in Computer Aided (Geometric) Design and architectural geometry.

Research Interests

- Computer Aided (Geometric) Design
- Elastic Curves
- Digital Fabrication
- Architectural Geometry

Education

- 2015 – 2018 **Ph.D., Applied Geometry**, *Technical University of Denmark*, Lyngby, Expected date of award: December 2018.
- 2013 – 2015 **MSc., Mathematics**, *University of Copenhagen*, Copenhagen, Average: 11.7.
- 2010 – 2013 **BSc., Natural Science and IT**, *University of Copenhagen*, Copenhagen.

Ph.D. Project

- Title *Surface design and rationalization for robotic hot-wire and hot-blade cutting techniques*
- Supervisors Assoc. Professor David Brander (main advisor), Assoc. Professor Jens Gravesen, Assoc. Professor J. Andreas Bærentzen
- Description
- Developed algorithms for designing production-ready surfaces/architectural form-work for the hot-blade technology.
 - Collaborated with 3XN (Danish architectural practice) and Odico ApS (Danish robotics company).

Master's Thesis

- Title *Design and surface rationalization with ruled surfaces*
- Supervisors Assoc. Professor François Lauze (main advisor), Assoc. Professor David Brander

Publications

1. **Bézier curves that are close to elastica**, D. Brander, J. A. Bærentzen, A.-S. Fisker, J. Gravesen. *Computer-Aided Design*, 104, 2018.
2. **Designing interactively with elastic splines**, D. Brander, J. A. Bærentzen, A.-S. Fisker, J. Gravesen. *Computer Aided Geometric Design*, 62, 2018.
3. **Designing for hot-blade cutting: geometric approaches for high-speed manufacturing of doubly-curved architectural surfaces**, D. Brander, J. A. Bærentzen, K. Clausen, A.-S. Fisker, J.

Experience

- 2017 **Teaching assistant**, Technical University of Denmark, Mathematics 2.
Teaching assistant for the course: "Mathematics 2".
- 2016 **Participant**, Technical University of Denmark, Teaching and Learning seminar.
Four days seminar.
- 2013 **Teaching assistant**, University of Copenhagen, Algorithms and Data Structures.
Teaching assistant for the course: "Algorithms and Data Structures".

Awards/grants

- 2017, 2018 Two travel grants from The Otto Mønsted Foundation.
- 2016 Best Paper Award, AAG 2016 Zürich. Advances in Architectural Geometry 2016.

Computer Skills

- Basic JAVASCRIPT,HTML,MAPLE, GRASSHOPPER 3D, BLENDER, SQL
- Intermediate L^AT_EX, C++,R
- Advanced PYTHON, RHINOCEROS 5, MATLAB

Communication Skills

- 2018 Talk, International Conference on Geometric Modeling and Processing
- 2017 Seminar, Freie Universität Berlin
- 2017 Poster, Ph.D. Bazaar Technical University of Denmark
- 2016 Poster, International Geometry Summit

Studying/Living Abroad

- 2017 - 2018 Freie Universität Berlin, Germany
Guest Ph.D. student at the "Mathematical Geometry Processing" group from December to March.
- 2014 - 2014 The University of Vienna, Austria
Erasmus student at the faculty of mathematics + four weeks intensive language course (German) from March to July.

Languages

- Danish mother tongue
- English professional
- German intermediate