

# Teresa Klatzer, BSc MSc

# Personal Information

E-mail	teresa.klatzer@gmail.com
Web	https://www.tugraz.at/institute/icg/research/team-pock/people/klatzer/
Nationality	Austria
Gender	Female

# Education

2015-now	PhD in Computer Science, Graz University of Technology, Austria.
	Research Area: Computer Vision, Machine Learning, Numerical Optimization, Supervisor: Thomas Pock
7/2016	BMS Summer School on Mathematical and Numerical Methods in Image Processing, Berlin Mathematical School, Germany.
7/2015	<b>Machine Learning Summer School</b> , Max Planck Institute for Intelligent Systems Tübingen, Germany.
2012–2014	<b>MSc in Information and Computer Engineering</b> , <i>Graz University of Technology</i> , Austria, With Distinction.
10/2013-9/2014	<b>Master's thesis</b> , <i>Institute for Computer Graphics and Vision, Graz University of Technology</i> , Austria. Thesis title: <i>Bi-level Optimization for Support Vector Machines</i> , Supervisor: Thomas Pock
2/2013-7/2013	<b>Student project</b> , Institute for Theoretical Computer Science, Graz University of Technology, Austria. Topic: State Estimation with Recurrent Neural Networks, Supervisor: Robert Legenstein
2008–2012	<b>BSc in Information and Computer Engineering</b> , <i>Graz University of Technology</i> , Austria.
9/2011-2/2012	Erasmus program, University of Lille 1 Science and Technology, France.
9/2011-2/2012	Student project, INRIA Lille, France.
	Topic: <i>Map Reduce Programming for Machine Learning Algorithms on Graphs</i> , Supervisors: Marc Tommasi and Gemma C. Garriga
2000–2008	Secondary school, Kapfenberg, Austria.
	High school diploma passed with distinction, English as working language

#### Professional Experience

11/2014–9/2017 **Research assistant**, *Institute for Computer Graphics and Vision, Graz University of Technology*, Austria.

Development of Deep Variational Networks for Low-Level Computer Vision

7/2014–9/2014 **Project assistant**, Institute for Computer Graphics and Vision, Graz University of Technology, Austria.

Development of numerical algorithms for bi-level optimization for Support Vector Machines

- 2010-2015 **Teaching assistant**, *Graz University of Technology*, Austria. Lectures: Convex Optimization, Analysis 1, Computer and Communication Networks
- 8/2013–9/2013 **Summer internships**, *Software Engineering Department, Reval Austria GmbH*, Graz, 7/2012–9/2012 Austria.
- 7/2011-8/2011 Software engineering in Java, C, and evaluation of agile software development processes
- 7/2009–9/2009 Au pair, Corsica, France. Child care, house-keeping and large progress in French language

#### Honors and Awards

2017 **Best Paper Award**, *German Conference on Pattern Recognition GCPR'17*, Basel, Switzerland.

Paper title: Variational Networks: Connecting Variational Methods and Deep Learning

- 2015 **Best Paper Award**, *Computer Vision Winter Workshop CVWW'15*, Seggau, Austria. Paper title: Continuous Hyper-parameter Learning for Support Vector Machines
- 2012 Scholarship of Excellence, Graz University of Technology, Austria.

### Skills and Expertise

- Research Computer Vision, Mathematical Image Processing, Machine Learning, Computational Photography, Numerical Optimization
- Programming C++, C, CUDA, Python, Matlab, Java Methods Agile software development, Scrum

#### Language Skills

Languages German (native), English (fluent), French (fluent), Spanish (basic), Italian (basic)

#### Talks

- 05/2017 Invited talk at the conference of Applied Inverse Problems in Hangzhou, China, in the mini-symposium "Non-standard regularisation: theory and applications"
- 02/2017 Invited talk at the interdisciplinary data science workshop "Mathematical imaging with partially unknown models" in Cambridge, UK
- 05/2016 Oral at the International Conference on Computational Photography, Chicago, USA, title: "Joint Demosaicing and Denoising Based on Sequential Energy Minimization"

02/2015 Oral at the Computer Vision Winter Workshop, Seggau, Austria, title: "Continuous Hyper-parameter Optimization for Support Vector Machines"

## Scientific Publications

Alexander Effland, Teresa Klatzer, et al. "Variational Networks for Joint Image Reconstruction and Classification of Tumor Immune Cell Interactions in Melanoma Tissue Sections". In: *Bildverarbeitung für die Medizin*. 2018.

Kerstin Hammernik, Teresa Klatzer, et al. "Learning a Variational Network for Reconstruction of Accelerated MRI Data". In: *Magnetic Resonance in Medicine*. 2018.

Teresa Klatzer, Daniel Soukup, et al. "Trainable Regularization for Multi-frame Superresolution". In: *Proceedings of the German Conference on Pattern Recognition*. 2017.

Erich Kobler, Teresa Klatzer, et al. "Variational Networks: Connecting Variational Methods and Deep Learning". In: *Proceedings of the German Conference on Pattern Recognition*. 2017.

Teresa Klatzer, Kerstin Hammernik, et al. "Joint Demosaicing and Denoising Based on Sequential Energy Minimization". In: *Proceedings of the International Conference on Computational Photography*. 2016.

Teresa Klatzer and Thomas Pock. "Continuous Hyper-parameter Optimization for Support Vector Machines". In: *Proceedings of the 20th Computer Vision Winter Workshop*. 2015.