Antonin Sulc

Contact Information	+420 731 250 375, sulc.antonin@gmail.com	Hamburg Germany

Research Interests: computer vision, 3D reconstruction, pattern recognition, machine learning,

Education

University of Konstanz, Konstanz, Germany

PhD, Computer Vision, 2015 - 2020

- Thesis Topic: *Lightfield Analysis for non-Lambertian Scenes*
- Grade: *Magna Cum Laude*
- Advisors: Prof. Dr. Bastian Goldlücke

Czech Technical University, Prague, Czech Republic

M.S., Artificial Intelligence, 2011 - 2014

- Topic: *On parametric model creation with Neural Modeling Fields*, nominated as CS Master Thesis of Year 2014 in Czech Republic
- Advisor: Dr. Michal Vavrecka

B.S., Intelligent Systems, 2008 - 2011

- Topic: *Covariance Matrix Adaptation Evolution Strategy*
- Advisor: Dr. Jan Drchal

Work

Data Scientist May'21 - Currently
MCS DESY Hamburg
Accelerator Control Systems,

Lecturer & Researcher March'20 - August'20
University of Haifa,
Marine Imaging Lab
Supervisor: Dr. Tali Treibitz

Lecturer & Researcher Jan'15 - Sept'20
University of Konstanz,
Computer Vision and Image Processing Group
Supervisor: Prof. Dr. Bastian Goldlučke,

Researcher Oct'18 - March'19
National Institute of Informatics in Tokyo,
Imari Sato Lab
Supervisor: Prof. Dr. Imari Sato

Software Engineer & Data Scientist Feb'14 - Dec'15
Vendavo Inc., Prague, Czech Republic
MAAS Team, Builduing a Recommendation System
Supervisor: Dr. Ludek Kopacek, Eric Bergerson

Conference Publications

1. S. Ishihara, **A. Sulc**, I. Sato. Depth Estimation Using Spectrally Varying Defocus Blur. In *JOSAA*, 2021
2. S. Ishihara, **A. Sulc**, I. Sato. Depth from Spectral Defocus Blur. In *Proc. International Conference in Image Processing (ICIP)*, 2019
3. M. Zhu, A. Alperovich, O. Johannsen, **A. Sulc**, B. Goldluecke. An Epipolar Volume Autoencoder with Adversarial Loss for Deep Light Field Super-Resolution. In *Proc. Conference on Computer Vision and Pattern Recognition Workshop (CVPRW)*, 2019.

4. **A. Sulc**, O. Johannsen, B. Goldluecke. Inverse Lightfield Rendering for Shape, Reflection and Natural Illumination. In *Proc. 11th International Conference on Energy Minimization Methods in Computer Vision and Pattern Recognition (EMMCVPR)*, 2017.

5. O. Johannsen, **A. Sulc**[1], N. Marniok, B. Goldluecke. Layered scene reconstruction from multiple light field camera views. In *Proc. Asian Conference on Computer Vision (ACCV)*, 2016.

6. **A. Sulc**, A. Alperovich, N. Marniok, B. Goldluecke. Reflection Separation in Light Fields based on Sparse Coding and Specular Flow. In *Proc. Vision, Modelling and Visualization (VMV)*, 2016.

7. O. Johannsen, **A. Sulc**, B. Goldluecke. Occlusion-aware depth estimation using sparse light field coding. In *Proc. German Conference on Computer Vision (GCPR)*, 2016.

8. O. Johannsen, **A. Sulc**, B. Goldluecke. What Sparse Light Field Coding Reveals About Scene Structure. In *Proc. Conference on Computer Vision and Pattern Recognition (CVPR)*, 2016.

9. O. Johannsen, **A. Sulc**, B. Goldluecke. Variational Separation of Light Field Layers. In *Proc. Vision, Modelling and Visualization (VMV)*, 2015.

10. O. Johannsen, **A. Sulc**, B. Goldluecke. On Linear Structure from Motion for Light Field Cameras. In *Proc. International Conference on Computer Vision (ICCV)*, 2015.

Invited Talks

- Light-field Analysis for non-Lambertian Scenes, *Pixel Club*, Winter 2020, Haifa, Israel
- Light-fields: Beyond the Lambertian, *The 38th Pattern Recognition and Computer Vision Colloquium*, Spring 2016, Prague, Czech Republic
- Light-field Analysis for non-Lambertian Scenes, *The 11th IMPACT Seminar*, Winter 2017, Prague, Czech Republic
- Computer Vision for Biology, *Summer School in Quantitative Field Biology*, Summer 2017, Konstanz, Germany

Teaching Experience

Co-instructor, University of Konstnaz

Image Analysis and Computer Vision I,
Image processing, Feature Detection, 3D reconstruction

Image Analysis and Computer Vision II,
Pattern Recognition, Graphical Models, Variational methods

Deep Learning in Computer Vision (Seminar),
Deep Learning, MatConvNet

Deep Learning in Computer Vision,
TensorFlow, CNNs, Auto-Encoders, GANs

Key Skills

Python, R, TensorFlow, CUDA, MATLAB, C, C++

Languages

English (C1), German (B2), Czech (native)

[1] Equal Contribution

Reviews	ICCV'19, ACCV'18, GCPR'17, TPAMI