

Antonin Sulc PhD

[illegible]

- **A. Sulc**, O. Johannsen, B. Goldluecke. Recovery of Geometry, Natural Illumination and BRDF from a Single Light Field Image, In *Journal of the Optical Society of America A*, 2022,
- S. Ishihara, **A. Sulc**, and I Sato, Depth estimation using spectrally varying defocus blur, In *Journal of the Optical Society of America A*, 2021,

PEER-REVIEWED PUBLICATIONS

1. **A. Sulc**, T. Hellert, R. Kammering, H. Houscher, J. M. St. John, Towards Agentic AI on Particle Accelerators at *ML4Physics Workshop at The Conference on Neural Information Processing Systems 2024*, New Orleans, USA
2. **A. Sulc**, R. Kammering, A. Eichler, T. Wilksen PACuna: Automated Fine-Tuning of Language Models for Particle Accelerators at *ML4Physics Workshop at The Conference on Neural Information Processing Systems 2023*, New Orleans, USA
3. **A. Sulc**, I. Sato, B. Goldluecke, T. Treibitz. Towards Monocular Shape from Refraction, In *BMVC*, 2021, **oral (3.3% acceptance)**
4. S. Ishihara, **A. Sulc**, I. Sato. Depth from Spectral Defocus Blur. In *Proc. International Conference in Image Processing (ICIP)*, 2019
5. 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.
6. **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.
7. 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.
8. **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.
9. O. Johannsen, **A. Sulc**, B. Goldluecke. Occlusion-aware depth estimation using sparse light field coding. In *Proc. German Conference on Computer Vision (GCPR)*, 2016.
10. 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.
11. O. Johannsen, **A. Sulc**, B. Goldluecke. Variational Separation of Light Field Layers. In *Proc. Vision, Modelling and Visualization (VMV)*, 2015.
12. O. Johannsen, **A. Sulc**, B. Goldluecke. On Linear Structure from Motion for Light Field Cameras. In *Proc. International Conference on Computer Vision (ICCV)*, 2015.

PUBLICATIONS

- **A. Sulc**, P. Connor ChatQCD: Let Large Language Models Explore QCD , 42nd International Conference on High Energy Physics
- P. Connor, **A. Sulc** Revealing Connections in QCD with Machine Learning , 42nd International Conference on High Energy Physics
- **A. Sulc**, A. Eichler, T. Wilksen, Automated Anomaly Detection on European XFEL Klystrons at *International Conference in Particle Accelerators 2024*, Nashville, USA
- **A. Sulc**, A. Eichler, G. Hartmann, T. Wilksen, J. St. John, F. Mayet, J. Maldonado, D. Ratner, J. Kaiser, V. Kain, T. Hellert, H. Hoschouer, Towards Unlocking Insights from Logbooks Using AI at *International Conference in Particle Accelerators 2024*, Nashville, USA
- **A. Sulc**, A. Eichler, T. Wilksen, Log Anomaly Detection on EuXFEL Nodes at *The 19th Biennial International Conference on Accelerator and Large Experimental Physics Control Systems*, Cape Town, South Africa, **oral**

¹Equal Contribution

- **A. Sulc**, A. Eichler, T. Wilksen Textual Analysis of ICALEPCS and IPAC Conference Proceedings: Revealing Research Trends, Topics, and Collaborations for Future Insights and Advanced Search at *The 19th Biennial International Conference on Accelerator and Large Experimental Physics Control Systems*, Cape Town, South Africa, oral
- **A. Sulc**, O. R. Kammering, T. Wilksen. A Data-Driven Beam Trajectory Monitoring at the European XFEL at *International Conference in Particle Accelerators 2022*, Bangkok, Thailand

TALKS AND TUTORIALS

1. Language Processing for Matter and Technology, *10th Annual MT Meeting*
2. Exploring the Strong Coupling Through Natural Language Processing at *1st Large Language Models in Physics Symposium (LIPS)*
3. Illuminating the Dark: Discovering in Dark Matter Research through Natural Language Processing at *1st Large Language Models in Physics Symposium (LIPS)*
4. Unlocking Insights from Logbooks using AI at DESY and BESSY at *9th Low Emittance Rings Workshop 2024*
5. Towards Unlocking Insights from Logbooks using AI at DESY and BESSY at *4th ICFA Beam Dynamics Mini-Workshop on Machine Learning for Particle Accelerators*
6. A Potential of Use of Language Processing in Accelerator Control Systems at *International Conference on Accelerator and Large Experimental Physics Control Systems 2023 in Cape Town, South Africa*
7. Machine Learning for Accelerator(s) R&D at *Any Light Particle Search Workshop at DESY in Hamburg, Germany*
8. Tutorial on Anomaly Detection at *ICFA Beam Dynamics Workshop in Chicago, IL, USA*
9. Current Development of Automated Accelerator Controls at *DESY 8th Matter and Technologies Annual Meeting in Hamburg, Germany*
10. Machine Learning for Anomaly Detection at *MLE-Summer School at TUHH in Hamburg, Germany*
11. Data-Driven Diagnosis at European XFEL at *CDCS Opening Symposium in Hamburg, Germany*
12. Light Field Analysis for non-Lambertian Scenes at *PixelClub - Technion in Haifa, Israel*
13. Multiobject Tracking Repetitive Patterns with Autoencoder at *Machine learning in the behavioral sciences Workshop at ASAB Summer School 2019 in Konstanz, Germany*
14. Lightfield Analysis for non-Lambertian Scenes at *The 11th Intelligent Machine Perception Seminar in Prague, Czech Republic*
15. Light-fields: Beyond the Lambertian at *The 38th Pattern Recognition and Computer Vision Colloquium in Prague, Czech Republic*
16. State-of-The-Art Computational Design and Fabrication

OTHER

- Scientific Chair of 5th ICFA Beam Dynamics Mini-Workshop on Machine Learning for Particle Accelerators.
- Reviewer of CVPR, NeurIPS
- B-driver license.