Stanford

Axel Levy

Ph.D. Student in Electrical Engineering, admitted Autumn 2020

Bio

BIO

Axel is a PhD candidate in Electrical Engineering at Stanford University. He is jointly supervised by Pr. Mike Dunne (LCLS, SLAC) and Pr. Gordon Wetzstein. His research focuses on solving inverse problems that arise in scientific imaging, that is to say getting as much information as possible about hidden physical quantities from noisy or sparsely sampled measurements.

HONORS AND AWARDS

- French Academy of Science Prize, Ecole Polytechnique (2021)

EDUCATION AND CERTIFICATIONS

- MS, Ecole Polytechnique, France , Theoretical Physics (2020)

LINKS

- Personal Website: https://axlevy.com/
- LinkedIn Profile: https://www.linkedin.com/in/axel-levy-x17/
- LCLS: https://lcls.slac.stanford.edu/
- Stanford Computational Imaging: https://www.computationalimaging.org/

Research & Scholarship

LAB AFFILIATIONS

- Mike Dunne, LCLS (6/1/2021)
- Gordon Wetzstein, Stanford Computational Imaging (5/31/2021)

Publications

PUBLICATIONS

- **Amortized Inference for Heterogeneous Reconstruction in Cryo-EM.** *Advances in neural information processing systems*
  Levy, A., Wetzstein, G., Martel, J., Poitevin, F., Zhong, E. D.
  2022; 35: 13038-13049
- **Deep Generative Modeling for Volume Reconstruction in Cryo-Electron Microscopy.** *Journal of structural biology*
  Donnat, C., Levy, A., Poitevin, F., Zhong, E. D., Miolane, N.
  2022: 107920

- **CryoAI: Amortized Inference of Poses for Ab Initio Reconstruction of 3D Molecular Volumes from Real Cryo-EM Images.** *Computer vision - ECCV ... : ... European Conference on Computer Vision : proceedings. European Conference on Computer Vision*
  Levy, A., Poitevin, F., Martel, J., Nashed, Y., Peck, A., Miolane, N., Ratner, D., Dunne, M., Wetzstein, G.
  2022; 13681: 540-557