FRIEDRICH-SCHILLER-UNIVERSITÄT JENA

Abbe Center of Photonics | JENA
Friedrich-Schiller-Universität

Institute of Applied Physics
Friedrich-Schiller-Universität Jena

NanoPico Photonic Computing

Student projects in optical computing and 3D nanofabrication

Internships, research-lab projects and Master's theses

Explore how light processes information. Choose a numerical or experimental project tailored to your interests, experience and available time.

RESEARCH DIRECTIONS

Adaptive optical neural networks

Programmable layers, reusable layouts and learning across changing tasks.

Computing with structured light

Information processing using spatial modes, polarization and wavelength.

Compact computing and imaging

Nonlocal thin films and transfer of near-field information to detectors.

Hybrid optical–digital vision

Optical feature extraction, efficient classifiers and fast surrogate models.

Photonic optimization and learning

Ising machines, engineered scattering and reservoir computing.

3D nanofabrication and design

2PP resolution, custom toolpaths and fabrication-aware neural networks.

If you are interested in optical computing and 3D nanofabrication, get in contact to learn more about available projects.

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