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## Seminar über Ultrafast Science and Technology

**Referent/in:** Eugene Fouche, Stellenbosch University, SA

**Titel:** Polarization-sensitive Fourier Ptychographic Microscopy for birefringence imaging

Fourier Ptychographic Microscopy (FPM) uses a number of images of a sample captured under angularly varying illumination in order to reconstruct an image of the sample with a much higher resolution. Low NA optics are generally used, leading to high-resolution, large field of view images.

I will give an overview of how FPM works, discuss what I have been working on in the lab and show a number of results.

By modifying the existing FPM setup we can perform polarization-sensitive FPM. This allows us to view birefringent mineral samples with greater contrast, by creating maps of the phase delay and optic axis orientation, which allows us to see the different crystal regions of the mineral samples.

**Zeit:** Dienstag, 04.07.2023, 11.15 Uhr

**Ort:** B116, ExWi, Sidlerstrasse 5, 3012 Bern