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## **Seminar über Biomedizinische Photonik**

**Referent:** Leonie Ulrich, Institute of Applied Physics, University of Bern

**Titel:** From bench to bedside: challenges of quantitative hypoxia imaging

Spectral optoacoustic (OA) imaging allows a spatially resolved estimation of oxygen saturation levels in tissue. However, wavelength-dependent light attenuation in the bulk tissue causes a distortion of the spectral OA signal and therefore makes quantitative imaging challenging. In a feasibility study, we combined OA imaging with near infrared optical tomography to perform a spectral correction of the OA signals. The use of a simplified tissue phantom allowed us to identify the challenges of the combined technique and to develop a more general methodology for the quantitative analysis of OA signals originating from vessels. This is a prerequisite for a future clinical application of the combined system.

**Zeit:** Mittwoch, 08.11.2017, 10:15 Uhr

**Ort:** **Hörsaal A97**, Gebäude exakte Wissenschaften, Sidlerstrasse 5, Bern, Schweiz