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**UNIVERSITÄT
BERN**

Seminar über Biomedizinische Photonik

Referent/in: Hans-Martin Schwab, Photoacoustics & Ultrasound Laboratory,
Department of Biomedical Engineering, Eindhoven University of
Technology

Titel: Advancing medical ultrasound with novel acquisition and reconstruction
techniques

Despite the great advantages of ultrasound imaging for clinical diagnosis, the image quality and the field of view of ultrasound is still inferior to other imaging modalities such as CT and MRI. However, ultrasound raw data contain a lot more information than what is currently made use of in state-of-the-art medical ultrasound machines. This talk shows how novel ways to acquire ultrasound data in combination with advanced physical models for ultrasound wavefield inversion can greatly advance the image quality of medical ultrasound. Following this path, next generation ultrasound devices might replace bulky, expensive and invasive imaging modalities and provide completely new diagnostic information in the future.

Zeit: Mittwoch, 16.10.2022, 10:15 Uhr

Ort: **Hörsaal A97**, Gebäude Exakte Wissenschaften, Sidlerstrasse 5,
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