

**FAKULTÄT für PHYSIK  
LUDWIG-MAXIMILIANS-UNIVERSITÄT  
MÜNCHEN/GARCHING**

**PHYSIK-DEPARTMENT  
TECHNISCHE UNIVERSITÄT MÜNCHEN  
MÜNCHEN/GARCHING**

## **MLL-KOLLOQUIUM**

**Donnerstag, 08.05.2014, 16<sup>15</sup> Uhr**

**Seminarraum 127, TUM, Physik II, Erdgeschoss/Nord  
Treffen zum gemeinsamen Kaffee 16 Uhr**

**Prof. Florian Grüner**

**(Univ. Hamburg / Center for Free-Electron Laser Science (CFEL)/ LMU  
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### **Plasma Wakefield Acceleration research: overview of projects in Munich and Hamburg**

The relatively new research field of Plasma Wakefield Acceleration (PWA) experiences a rapid growth of national and international activities, well documented by the fact that even large-scale accelerator centers, such as CERN, SLAC, and DESY, enter this field. The Helmholtz Association launches a new program called Accelerator Research and Development (ARD), including PWA-research with Hamburg University being a strategic partner. In this talk the basic principle of laser- and beam-driven PWA as well as a catalogue of open questions will be presented. In the second part the synergy of research projects between Munich (MAP/CALA) and Hamburg (LAOLA/ARD) will be discussed and potential future applications such as driving compact brilliant X-ray sources and medical imaging will be explored.

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