FAKULTÄT für PHYSIK
LUDWIG-MAXIMILIANS-UNIVERSITÄT
MÜNCHEN/GARCHING

PHYSIK-DEPARTMENT
TECHNISCHE UNIVERSITÄT MÜNCHEN
MÜNCHEN/GARCHING

MLL-KOLLOQUIUM

Donnerstag, 31.05.2012, 16^{15} Uhr

Hörsaal der LMU in Garching, Am Coulombwall 1
Treffen zum gemeinsamen Kaffee 16 Uhr

Dr. Zsuzsanna Major

MPI f. Quantenoptik, Garching / LMU München

Laser-source development at LEX-Photonics - Status and plans

The Laboratory for Extreme Photonics (LEX-Photonics) of the LMU, located at the campus in Garching, is a new research infrastructure aiming at the development of novel ultrahigh-power light sources with the final goal of applying these unique light pulses to medical diagnosis and therapy as well as to fundamental research in the field of attosecond science. LEX-Photonics constitutes a pillar that supports the future research facility CALA (Centre for Advanced Laser Applications), which is a joint infrastructure of LMU and TUM.
Since the LEX building has recently been completed, the laser development activities will start in the near future. In my talk I will give an overview of the planned laser systems with particular emphasis on the unique requirements for the respective applications. The applied technologies range from 'conventional' Ti:Sapphire chirped-pulse amplification to novel picosecond-pumped optical parametric amplification using thin-disk solid-state technology as a pump-laser source. I will discuss the potential, the limitations and the technological challenges of these systems.

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