

Laser-Ion Acceleration - Activities in Munich, LEX and CALA

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We currently extend our research capabilities in the framework of the laboratory for extreme photonics (LEX). Amongst the development of a 5 fs, 100 TW-laser, the PFSpro, we will operate our ATLAS laser system which has been operated over decades at the MPQ at a 300 TW level. A further upgrade to ultimately 3 PW peak power becomes possible in the Center for Advanced Laser Applications, CALA, until 2017. As the name intends, the center is dedicated to applications, not only of laser-driven ions, but also laser (and conventionally) accelerated electrons and the brilliant radiation generated by those. My talk will provide an overview over this intriguing project. I will highlight some of the most important developments in the field of laser-driven ion accelerators in Munich, from which we aim to benefit for this great endeavour.