

Towards viable Laser-driven ION (LION) sources for applications –LION at the Center for Advanced Laser Applications (CALA)

Wednesday, 7 September 2016 10:05 (40 minutes)

One of the most intriguing features of laser-driven ion sources is their potentially short duration and micrometer small source size (low longitudinal and transverse emittance), which is a direct consequence of the highly intense laser pulses at play. My talk will impart the most relevant underlying principles of laser ion acceleration, supported by recent examples demonstrating this potential for applications. In particular, I will highlight (overdue) technological advances which we pursue at the chair for medical physics of the Ludwig-Maximilians-University Munich. Those developments will facilitate a solid basis for our research targeted in the Centre for Advanced Laser Applications (CALA) at the research campus in Garching b. München, which amongst other intriguing equipment, will host a 3 PW-laser system operated at 1Hz repetition rate.

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