

GROUP FOR LASER ION ACCELERATION

Our group is working at Centre for Advanced Laser Applications (CALA), which will soon host one of the most powerful lasers in the world at the Forschungszentrum in Garching. To support our experimental team, we are currently looking for a talented and motivated

MASTER STUDENT

In the framework of your thesis, you will first get to know and learn how to operate our unique system for levitating targets. In your thesis, you will extend the target system towards levitating targets of new sizes, materials and geometries. In the scope of your work, you will gain experience with optical and electronic systems. Additionally, you will also get involved in experiments at the CALA facility, using high-power lasers.

Basic knowledge of laser-plasma interactions is beneficial, but not mandatory. Programming in Python will be necessary for the work. Enjoyment of experimental work and great motivation for lab work are major prerequisites.

If we caught your attention, we would be happy to receive your application including your transcript of records and CV to the email address below. You are always welcome to visit us in Garching for a lab tour and a chat in person.

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Laser-driven Ion Acceleration (LION)

LION has been an emerging research field since its discovery 15 years ago. We use modern ultra-short high-power lasers, applying technology awarded with the 2018 Nobel Prize in Physics. Focused on solid density targets, highly energetic ion are emerging the plasma. Beams from this source feature unique beam properties that will drive manifold applications in medical physics and elsewhere

Isolated Microspheres

We use a linear Paul trap to precisely position microspheres in the micrometer-sized focus of a high power laser. The full positional control over fully isolated targets is unique in the laser plasma community and enables detailed studies on the laser matter interaction.

