

## Magnetohydrodynamic simulations of laser-target interaction

**Abstract:** The interaction of laser radiation with plasma in a strong magnetic field is a very important topic both for basic research and for inertial fusion applications, where, for example, the MAGLIF concept envisages the use of pre-magnetized fuel to improve its compression and facilitate its ignition. The interaction of laser radiation with plasma will be studied using the Eulerian magnetohydrodynamic code FLASH. The physical and numerical model describing the magnetic field will be refined in the code, and the simulation results will be used to design of interaction experiments in the PALS laser laboratory.

**Type of thesis:** dissertation thesis

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