The Laser Direct Drive Shock Ignition approach to Laser Fusion


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Shock ignition is a promising route for laser fusion ignition; in principle high fusion energy-gain can be achieved with modest driver energies and hence capital investment.

This talk will detail both simulations and ongoing collaborative experiments on the Omega, and NIF laser facilities. These are being performed both to improve our understanding of the physics of shock ignition and in an effort to develop improved modelling capabilities in the intensity-regime required for shock ignition. Discussions will include new concepts which may enable shock-ignition to be achieved on today’s laser facilities without the need for extensive modifications.