

Current status of the LULI laser facilities

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LULI is the major French national physics research center for fundamental research and applications in plasma physics. This very large European and National laser facility develops continuously its multi-beam, multiple pulse duration (fs-ns), high energy laser systems. In my talk, after a brief presentation of the “LULI2000” and “ELFIE” which are two Nd³⁺: glass facilities under operation, a synthesis will be given on the Apollon 10 PW laser currently under construction: its architecture, laser implementation advances, as well as some discussions about the theoretical investigations of the spatio-temporal coupling effects acting on the Apollon laser pulse duration, pulse contrast and beam focal spot quality on target.