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**Absolute Stimulated Raman Scattering Sidescatter in Direct-Drive Irradiation Geometries** R.W. SHORT, A.V. MAXIMOV, W. SEKA, Laboratory for Laser Energetics, U. of Rochester — As the plasmas involved in direct-drive laser-fusion experiments increase in scale length and temperature, the relative importance of absolute stimulated Raman scattering (SRS) relative to two-plasmon decay as a source of hot electrons is expected to increase, owing to the stronger dependence on scale length and weaker dependence on temperature of the former.<sup>1</sup> Absolute SRS backscatter occurs only at quarter-critical density, while absolute SRS sidescatter can occur throughout the sub-quarter-critical density plasma. In this talk a formalism is presented to investigate thresholds for absolute SRS in the context of direct-drive irradiation, comprising multiple beams having varying angles of incidence and polarization. Representative examples will be presented to illustrate the behavior of absolute SRS under these conditions, with emphasis on sidescatter at wavelengths below the half-harmonic of the laser. This material is based upon work supported by the Department of Energy National Nuclear Security Administration under Award Number DE-NA0001944.

<sup>1</sup>C. S. Liu, M. N. Rosenbluth, and R. B. White, *Phys. Fluids* **17**, 1211 (1974)

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