

Abstract Submitted
for the DPP17 Meeting of
The American Physical Society

Fluid modeling on three dimensional two plasmon decay instabilities and stimulated Raman scattering using FLAME-MD¹ RUI YAN, SHIHUI CAO, ZHENHUA WAN, GUANGYUE HU, JIAN ZHENG, U. of Science and Technology of China, LIANG HAO, Institute of Applied Physics and Computational Mathematics, China, WENDA LIU, CHUANG REN, U. of Rochester — We push our FLAME project forward with a newly developed code *FLAME-MD* (Multi-Dimensional) based on the fluid model presented in Ref.[1]. Simulations are performed to study two plasmon decay (TPD) instabilities and stimulated Raman scattering (SRS) in three dimensions (3D) with parameters relevant to ICF. 3D effects on the growth of TPD and SRS, including laser polarizations and multi beam configurations, are studied. [1] L. Hao et al., Phys. Plasmas **24**, 062709 (2017)

¹This material is based upon work supported by National Natural Science Foundation of China (NSFC) under Grant No. 11642020, 11621202; by Science Challenge Project (No. JCKY2016212A505); and by DOE Office of Fusion Energy Sciences grant DE-SC0014318.

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Date submitted: 14 Jul 2017

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