

Abstract Submitted
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Stimulated Raman scattering of a laser pulse in magnetized plasma SUKHDEEP KAUR, A.K. SHARMA, Indian Institute of Technology, Delhi, India — A Gaussian laser beam propagating through a magnetized plasma pushes the plasma radially outward, creating a plasma channel. The channel guides and self focuses the laser. However, the channel is susceptible to Stimulated Raman back Scattering. In this process laser couples to a space charge mode to produce the frequency downshifted electromagnetic side band and the laser exert a ponderomotive force on the electrons, driving the space charge mode. The nonlocal effects reduce the growth rate of the Raman process.

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