

Abstract| Stimulated Raman backscattering (SRBS) in a homogeneous, weakly magnetized plasma has been studied, where a system of coupled equations has been derived and solved for an analytical formula that describes SRBS instability. The presence of a static magnetic field is found to suppress the SRBS instability and increase the threshold. SRBS suppression increases as the density increases, where the instability growth rate drops to zero near the quarter critical density.