Abstract Submitted
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Non-linear Plasma Wave Excitation for Laser Wakefield Acceleration ZAFAR YASIN — High intensity laser pulses can be used to excite the non-linear plasma wakefield for accelerating electrons to relativistic energies. For 1D cold plasma, second order nonlinear differential equation for electrostatic potential can be analytically and numerically solved. Results generated for various laser plasma parameters of interest will be used to describe the plasma wave properties. Current physics issues with excitation and evolution of plasma wave in the 1D underdense plasma will be discussed.

Zafar Yasin

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