

Abstract Submitted
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Compton scattering gamma-ray source optimization¹ FREDERIC HARTEMANN, SHELDON WU, FÉLICIE ALBERT, CHRIS BARTY, LLNL — The interaction of a bright relativistic electron beam with an intense laser pulse via Compton scattering can generate tunable gamma-rays for precision nuclear photonics applications. The properties of the gamma-ray phase space will be outlined, in relation with the 6D electron bunch and 6D laser pulse phase space, along with collimation, nonlinear effects and other sources of spectral broadening. Optimization strategies will be outlined within the context of nuclear photonics applications.

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