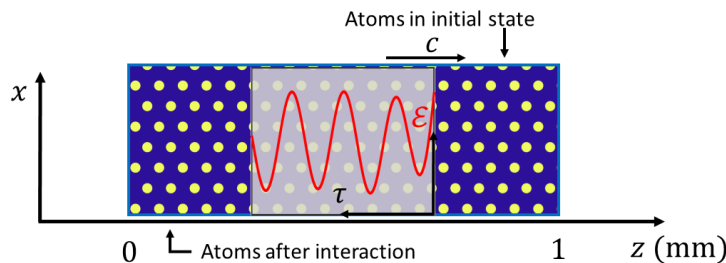


Phase space perspective on the coherent buildup of high harmonic radiation

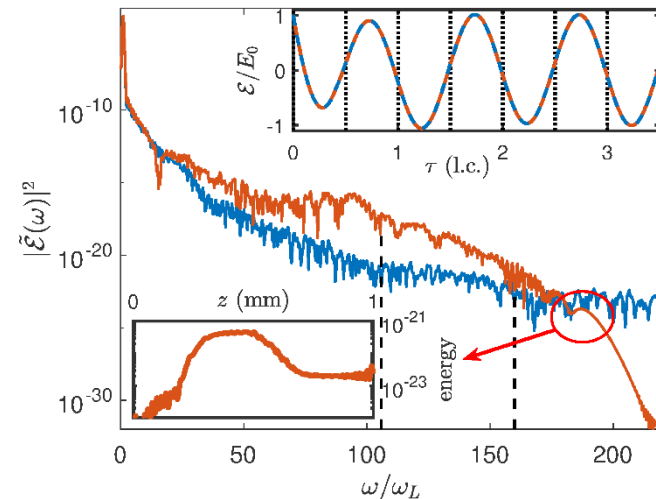


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High harmonic generation is the production of coherent high-frequency radiation observed during the propagation of intense, ultrashort laser pulses through atomic gases. **The self-consistent interaction between the laser field and the atomic electrons drastically alters the spectrum throughout propagation.**



$$\partial_z \mathcal{E} = 2\pi c^{-1} \rho(z) \langle v(z, \tau) \rangle$$



Our goal: understand the buildup of the high harmonics throughout propagation using a reduced fully classical model.