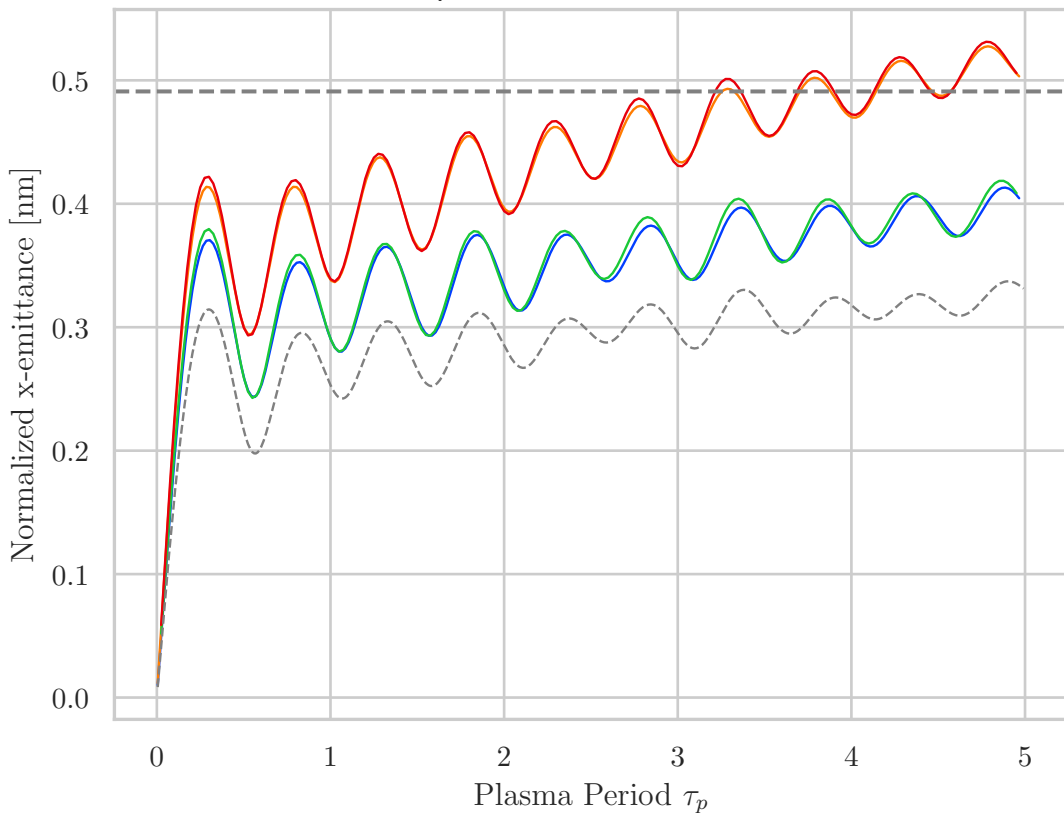


# Cold Sphere Normalized Emittance



- Langevin (Grad, 256<sup>3</sup>,  $f_c = 1.5$ )
- Langevin (Spectral, 256<sup>3</sup>,  $f_c = 1.5$ )
- Langevin-GPU (Grad, 256<sup>3</sup>,  $f_c = 1.5$ )
- Langevin-GPU (Spectral, 256<sup>3</sup>,  $f_c = 1.5$ )
- - - P3M (256<sup>3</sup>,  $r_c = 0.0$ ,  $f_c = 1.5$ )