## HICS, OPPP total transition rate validation plots

OPPP rate, full vs exponential asymptote

## HICS rate, full vs monte carlo 0.12 16.5 GeV initial electrons, head on collision flat intensity laser pulse 0.1 Total Rate /e- /fs 0.08 0.06 0.04 0.02 Full HICS r1 = flat nuise, ramp over 1 wavelengt r1 monte carlo 0 0.5 1.5 2.5 3.5 4 4.5 ε



- Validation curves MC/analytic available for both OPPP and HICS (low statistics)
- Remaining "gap" due to irreducible realism (multiple scattering, pulse ramps)
- $\circ~$  E-laser MC still in progress, parallelisation introduced for  $10\xi^3~$  HICS sum