



## Reaching high laser intensity by a radiating electron

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The question of whether an electron radiating its energy away during the interaction with a laser can reach the region of highest intensity with energy high enough to make a number of different phenomena observable is one of the most studied and most important in strong field quantum electrodynamics. We present a simple analytical estimate for an average electron energy evolution benchmarked against particle-in-cell simulations. Furthermore, these results are used to estimate the electron and laser pulse properties required to make vacuum Cherenkov emission observable [1].

### References

[1] M. Jirka et al., Phys. Rev. A 103, 053114 (2021)