

# Self-Sustained QED Cascades in Ultra-Intense Laser Fields Revisited: The Effect of The Local Field Structure on the Particle Growth Rates

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It is predicted that in self-sustained (aka avalanche-type) QED cascades, an exponential amount of electrons, positrons, and hard photons can be produced in the interaction of an ultra-strong electromagnetic field with seed particles [1, 2]. For this, the field should satisfy specific conditions [3] that can be met at the focus of two counterpropagating laser pulses. We revisit the theory of QED cascades in the context of this setup. We discuss how the cascade growth rate scales with the laser field strength and the impact of the electromagnetic field local structure on the multiplicity.

## References

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