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# Radiation in conformal field theories

*Tuesday, 1 December 2020 14:30 (1 hour)*

We overview recent developments in the study of radiation in conformal field theories. We show that in conformal field theories including scalar fields, the radiative energy density is not positive definite, the radiated power is not Lorentz invariant and it depends on the derivative of the acceleration. We then discuss the coupling dependence of radiation, and we present unified results for conformal field theories with extended supersymmetry by introducing a novel technique which allows us to calculate the Wilson loop and the partition function for these theories. The results we obtain are all-order expressions in the 't Hooft coupling in the planar limit.

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