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One-loop running in bosonic theories

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A general Effective Field Theory (EFT) containing scalars and vectors up to mass dimension six is presented. For such a general theory the complete set of one-loop renormalization group equations (RGEs) is discussed, employing both on-shell unitarity-based and geometric techniques.
The results broadly apply to any EFT with arbitrary gauge symmetry and bosonic degrees of freedom. To illustrate the utility of these results, I will present new results for the running of models containing axion-like particles with CP-violating interactions.

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