



Contribution ID: 75

Type: **not specified**

## Benchmarking effective actions and their flow equations in zero dimensions

*Thursday, 28 July 2022 17:35 (20 minutes)*

We can define various quantum effective actions, each of which may have particular utility or convenience, in analogy to the Routhians of classical mechanics. In this talk, we provide an update on efforts to provide pedagogical and explicit illustrations of the construction and subtleties of various effective actions and, in particular, the one-particle-irreducible, average one-particle-irreducible and two-particle-irreducible effective actions. By focussing on zero-dimensional “QFTs”, we are able to make concrete one-to-one comparisons in terms of analytic expressions for the effective actions, and the relevant  $n$ -point functions and sources, and to benchmark various approaches to the derivation of exact flow equations.

**Presenter:** MILLINGTON, Peter