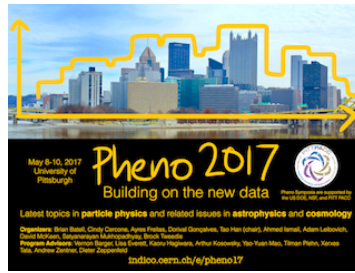


Phenomenology 2017 Symposium



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PyR@TE2: new developments

Tuesday, 9 May 2017 18:15 (15 minutes)

Renormalization Group Equations for an arbitrary gauge field theory have been known at two-loop for about 30 years. Deriving them by hand for a specific model is a very tedious task prone to errors. In order to automate this process, we released in 2014 a Python program called PyR@TE that automatically derived the RGEs for a given Lagrangian (non-SUSY).

Recently, we published the second version of this program that greatly extends the capabilities of the first version. In particular, models involving kinetic mixing are now fully supported at two-loop, and a dedicated group theory library has been developed in order to cover generic group and irreducible representations.

In this talk, an overview of PyR@TE will be given with a strong emphasis on the new capabilities.

Summary

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Session Classification: Novel Techniques & Tools