



Contribution ID: 60

Type: **not specified**

## Asymptotic Safety in Generalized Proca Theories

*Thursday 26 September 2024 15:10 (20 minutes)*

There are still many unanswered questions from General Relativity, such as black holes singularity and dark energy: these puzzles have led to the development of extended theories of gravity. One approach to modifying General Relativity consists of adding new degrees of freedom, such vector fields, resulting in the so-called Generalized Proca theories. In order to determine whether these theories are consistent and can provide predictions, this work investigates the possibility of an “asymptotically safe”ultraviolet completion, which would make them free from unphysical ultraviolet divergences. This involves analyzing their beta functions and establishing whether there exist fixed points acting as partial ultraviolet attractors.

**Presenter:** RUFRANO ALIBERTI, Sara

**Session Classification:** Parallel A