

## 3rd CERN Baltic Conference (CBC 2023)



Contribution ID: 79

Type: **not specified**

# Hunting new-physics footprints: the SMEFT program for the LHC

*Tuesday 10 October 2023 16:20 (1h 10m)*

Over a decade after the discovery of the Higgs boson, the hunt for physics beyond the Standard Model faces the possibility that new particles might be too heavy to be seen at the LHC. In this case, they would only leave small non-resonant traces in the measured distributions, that could be detected in high-precision measurements. The theoretical framework that best describes these effects is the so-called Standard Model Effective Field Theory (SMEFT). After giving a pedagogical introduction to this theory, the talk will review the enormous theoretical and experimental progress made in the past decade towards enabling an “agnostic”, SMEFT-based interpretation of experimental data, and it will discuss current limitations and future prospects.

**Presenter:** BRIVIO, Ilaria (University of Zurich)

**Session Classification:** Conference keynote