

Kira, Feynman integral reduction program – new developments

Friday 29 April 2022 16:30 (30 minutes)

In this talk we discuss new developments in the open-source Feynman integral reduction tool Kira.

We explore algorithmic improvements like the construction of block-triangular systems for more efficient reductions and new features to help in the calculation of master integrals through differential equations.

Kira's ability to solve homogeneous linear systems of equations can also be applied to countless other problems apart from the reduction of Feynman integrals.

We thus present new features to facilitate such applications.

Primary author: USOVITSCH, Johann (CERN)

Co-authors: LANGE, Fabian (KIT); MAIERHÖFER, Philipp (Universität Freiburg)

Presenter: USOVITSCH, Johann (CERN)

Session Classification: Parallel 9