

# Massively parallel computer algebra and its application to the computation of Feynman integrals

*Tuesday, February 14, 2023 3:00 PM (1 hour)*

In this talk, I will first discuss the Singular/GPI-Space project which aims to bring together computer algebra systems and the workflow management system GPI-Space to perform massive parallel computations. I will illustrate how GPI-Space leverages a coordination language based on the idea of Petri nets to efficiently model algorithms. Focusing on specific use cases, I will demonstrate how our approach can be applied, with a particular emphasis on algorithmic methods for Feynman integrals in high-energy physics.

**Presenter:** BÖHM, Janko

**Session Classification:** Session V