

## Holonomic Techniques for Feynman Integrals



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## Euler Discriminant of Complements of Hyperplanes

*Wednesday, 16 October 2024 11:00 (45 minutes)*

The Euler discriminant describes the locus of coefficients that cause a drop in the Euler characteristic of a very affine variety. In this talk, we focus on the case where the variety is the complement of hyperplanes. I will present formulas for two specific scenarios: when the coefficients are sparse and when they are restricted to a subspace of the parameter space. These formulas enable the computation of singularities in Euler integrals of linear forms, with applications in cosmology. This is joint work with Saiei Matsubara-Heo.

**Presenter:** FEVOLA, Claudia (Inria Saclay)