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Computing intersection numbers with a rational algorithm

Tuesday, February 14, 2023 11:45 AM (30 minutes)

Intersection theory allows to exploit the vector space structure obeyed by Feynman integrals, turning the decomposition to master integrals into the calculation of the projection of a vector into a basis, via scalar products called intersection numbers. In this talk I will discuss how the calculation of intersection numbers can be achieved via a purely rational algorithm, through the systematic use of polynomial series expansions, and its implementation over the finite fields using the FiniteFlow program.

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