"RECENT PROGRESS IN INTERSECTION THEORY FOR FEYNMAN INTEGRALS DECOMPOSITION."

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Abstract: "High precision calculations in perturbative QFT often require evaluation of big collection of Feynman integrals. Complexity of this task can be greatly reduced via the usage of linear identities among Feynman integrals. Based on mathematical theory of intersection numbers, recently a new method for derivation of such identities and decomposition of Feynman integrals was introduced and applied to many non-trivial examples.

In this talk we will discuss the latest developments in algorithms for the evaluation of intersection numbers, and their application to the reduction of Feynman integrals."