

## Frontier of Multi-loop Feynman Integrals and Scattering Amplitudes

*Saturday, 20 December 2025 11:00 (30 minutes)*

In this talk, we present our recent work at the frontier of multi-loop Feynman integrals and scattering amplitudes for precision physics. We have analytically computed two-loop six-point and three-loop five-point integrals, which represent the current state of the art in analytic Feynman integrals. Using these results and new reduction tools based on algebraic geometry, we have calculated the full-color two-loop QCD corrections for Higgs boson production in association with a bottom quark pair.

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