



# YOUNGST@RS - Loop-the-Loop: Feynman Calculus and its Applications to Gravity and Particle Physics

## Thursday 14 November 2024

### Scattering Amplitudes in Particle Physics: Amplitudes & Elliptics (10:30 - 12:00)

time	[id] title	presenter
10:30	[21] Two-loop massive corrections for diphoton production in gluon fusion	CORO, Federico
11:00	[22] $\epsilon$ -form for Feynman integrals with Calabi-Yau geometry	MAGGIO, Sara
11:30	[23] Towards two-loop QCD corrections to $pp \rightarrow t\bar{t}j$	BRANCACCIO, Colomba

### Scattering Amplitudes in Particle Physics: Differential Equations (13:30 - 15:00)

time	[id] title	presenter
13:30	[24] A first computation of three-loop master integrals for the production of two off-shell vector bosons with different masses	CANKO, Dhimiter
14:00	[25] Computing form factors in N=4 sYM for Higgs plus jet(s) production	LIM, Jungwon
14:30	[26] Tackling Apparent Singularities in Calabi-Yau Feynman Integrals	PÖGEL, Sebastian

### Scattering Amplitudes in Particle Physics: Infrared Subtraction (15:30 - 17:00)

time	[id] title	presenter
15:30	[27] Subtracting IR singularities with a fully general analytic algorithm in massless QCD	BERTOLOTTI, Gloria
16:00	[28] Numerical Integration of the $N_f$ Virtual Corrections to Triboson Production at NNLO	VICINI, Matilde
16:30	[29] Nested soft-collinear infrared subtraction	DEVOTO, Federica