

LOOPFEST

XXII

<https://indico.cern.ch/e/Loopfest2024>



Concluding remarks

The vast panorama of advances in precision QFT

The P5 report emphasizes that progress in theory is central and mandatory for near-future studies of fundamental physics

At this workshop, we discussed important conceptual developments, record-breaking loop calculations, innovative applications to tests of SM and its possible extensions

The impact of the continuing NNLO/N3LO revolution is maximized by coordinated developments in parton showers, resummations, nonperturbative QCD functions, high-performance computing, multivariate statistics/AI/ML

We covered the emerging needs of the experiments for theoretical experiments (Les Houches and MuIC wish lists), synergies between precision studies at high and low scattering energies

We thank all the speakers and Chairs for productive sessions

Many thanks to Yentel, Betty, Brendon, Junaid, Lucas, Max, Yingnan for help with running the workshop over three days

The conversation will continue at

**the 23rd LoopFest workshop
at University of Alberta, Edmonton, Canada
in May 2025**



Bon voyage,
&
see you in
Dallas again!

