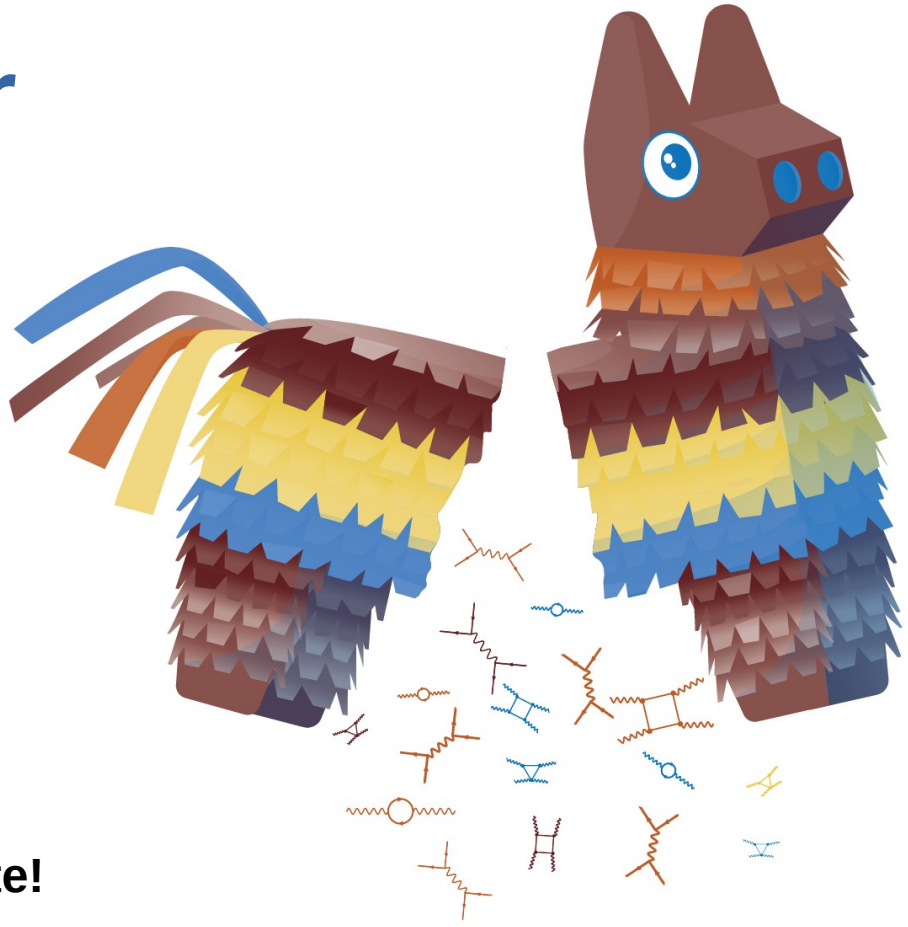
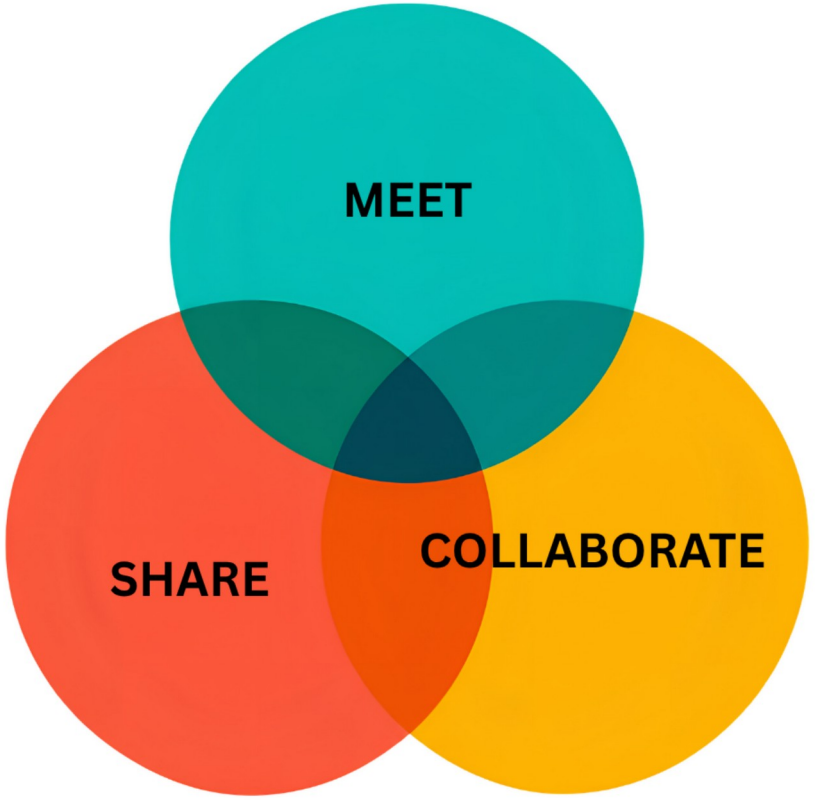
Mexican Community for Scattering Amplitudes

2 October 2026



A place to meet, exchange ideas, and collaborate!

Why are we here?



Meet
→ Who is working on what?

Share
→ Techniques, problems, ideas, tools,…

Collaborate
→ Complementary expertise, shared projects

Mexico has a growing amplitudes community.
Let's make it easier for us to find each other!

Scattering Amplitudes?

Who we are:

> *“We are an open community for anyone in Mexico working on — or curious about — scattering amplitudes, correlators, and other observables in perturbative quantum field theory beyond tree level. We are united by shared methods and mathematical structures, not by a single application, and we explicitly welcome students and newcomers.”*

We don’t want it to be too narrow ...

If amplitudes are part of your toolbox — or you want them to be — you're welcome.

What could we do together?

Seminars:
→ Nationwide online amplitude seminar

Technique Exchanges:
→ Informal lectures on various topics

Collaborative projects:
→ Start something new and find your new colleagues!

A place to talk:
→ **“**I am stuck! Do you know the answer?”

The community decides what it needs!

Help us!

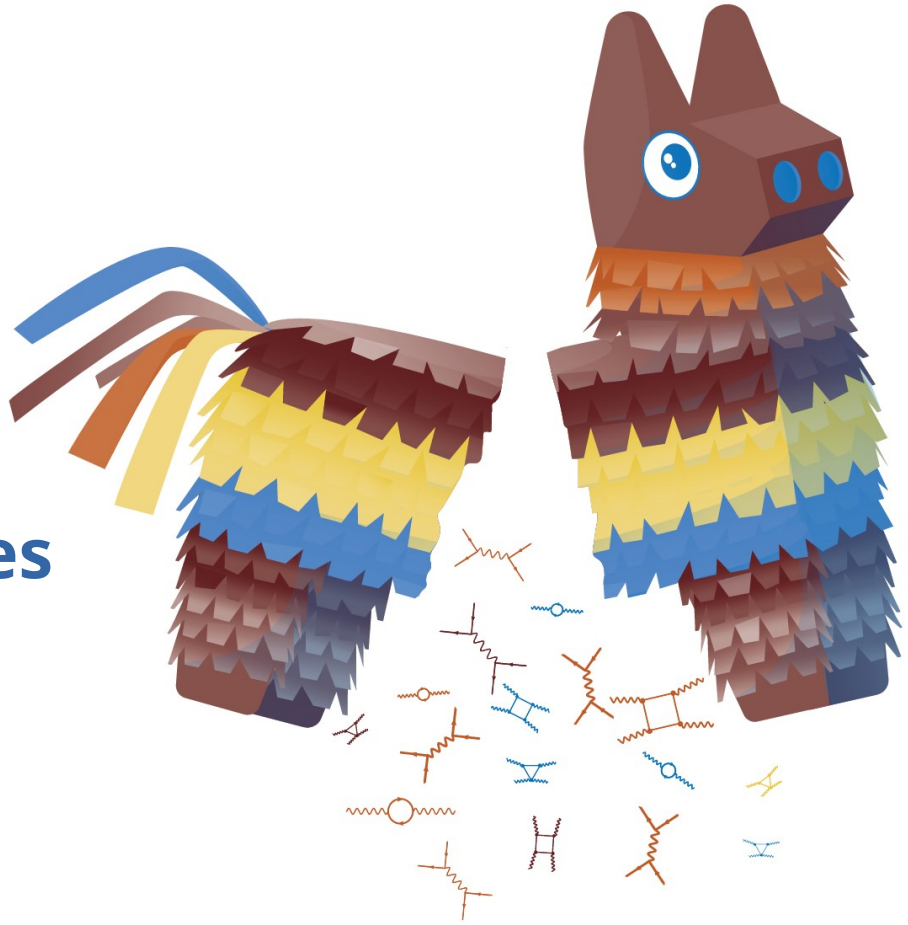
We just started …

→ Join us at Slack → QR code
→ Contact us to be added to the mailing list

Name suggestions for our community?
Tell us your ideas!

Manfred Kraus

From Top Quarks to Black Holes

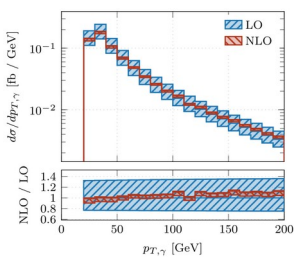


My research

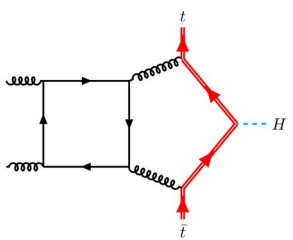
SCATTERING AMPLITUDES

Caravel

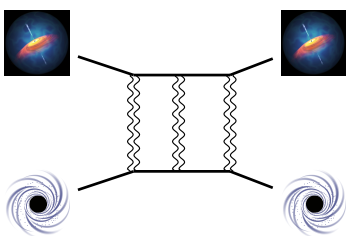
COLLIDER PHYSICS



MULTI-LOOP METHODS



CLASSICAL GRAVITY



What I work on

SCATTERING AMPLITUDES

→ Automation of multi-loop calculations
→ Generalized Unitarity

MULTI-LOOP METHODS

→ Multi-loop integrals
→ Differential equations
→ New for me: Elliptic integrals

TOP-QUARK PHYSICS

→ Phenomenology of rare top-quark processes: ttV
→ Provide high-precision predictions for the LHC
→ Event Generators

CLASSICAL GRAVITY

→ Spinning Black Holes from Amplitudes
→ New: Charged Black Holes
→ Provide theo. Input for Waveform modelling

What I would like to learn

I know something about ...

→ Multi-loop amplitudes
→ NLO Phenomenology
→ Monte Carlo programs
→ Parton shower Matching
→ Classical Gravity from Amplitudes

→ Lot's about computer stuff

I'd like to learn more about ...

→ Thermal Quantum Field Theory
→ New approaches to Amplitudes
→ Cosmological Amplitudes
→ Mathematical Structures of amplitudes

If you see an overlap – come talk to me!

What occupies my brain recently

Lessons learnt from classical Gravity:

→ Solving Einstein equations is tedious and becomes untractable.
→ QFT provides an amazing framework to do very challenging computations.
→ The quantum problem is more systematic for us

Are there other classical problems that could benefit from QFT?

→ Where do we use classical field theory?
→ Can we map that into a QFT problem?