Contribution ID: **133**   Type: **not specified**

Real World Amplitudes from Curves on Surfaces

Monday 3 June 2024 12:00 (30 minutes)

In this talk, I will begin by reviewing a new formulation of particle and string scattering amplitudes in terms of curves on surfaces, built around making the behavior near singularities manifest. I will then describe how this picture exposes qualitatively new features of real-world amplitudes: a novel pattern of factorizations away from poles, a direct kinematic connection between colored scalar, pion, and gluon amplitudes, and a surface generalization of kinematics allowing the determination of "perfect" loop integrands for the non-linear sigma model and non-supersymmetric Yang-Mills theory.

Presenter: FIGUEIREDO, Carolina (Princeton University, USA)