Contribution ID: **47**   Type: **not specified**

Spectral Analysis of the Feynman Integral: Stratifying Wave Fronts and Landau Singularities

Tuesday, 15 October 2024 16:45 (15 minutes)

I will present a method to calculate the Landau singularities of a Feynman integrals using Whitney stratifications. Whitney stratifications themselves are microlocal in nature, meaning that they naturally do not only live in the space we are stratifying but in the cotangent bundle of this space. With this in mind I introduce a microlocal (or rather distributional) framework for Feynman integrals where singularities are now described by wave front sets and characteristic varieties; these sets not only describe where a distribution is singular but also the Fourier components causing them. The role of Whitney stratifications will be stressed throughout.

Primary author: TELLANDER, Felix (University of Oxford)

Presenter: TELLANDER, Felix (University of Oxford)

Session Classification: Poster Session