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Revealing Hidden Regions and Forward Scattering

Tuesday 16 April 2024 12:00 (30 minutes)

We discuss a class of Feynman Integrals which contain *hidden regions* that are not straightforwardly identified using the standard Geometric/Newton polytope approach to the Method of Regions. Using existing analytic results, we analyse the appearance of such regions in forward scattering and on-shell wide-angle scattering and discuss how they can be exposed in both the momentum and parametric representations. We demonstrate that some such integrals contain leading Landau singularities that prevent their direct numerical evaluation in parameter space and describe how they can be re-parameterised to circumvent this problem.

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