

Department of Theoretical Physics

## THE QUANTUM SPACETIME SEMINAR SERIES

## **Spinning S-matrix Bootstrap in 4d**

(Zoom Seminar)



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Date: April 5, 2021

Time: 5.00 pm IST

Zoom link shall be shared separately

We review unitarity and crossing constraints on scattering amplitudes for particles with spin in four dimensional quantum field theories. As an application we study two to two scattering of neutral spin 1/2 fermions in detail. Assuming Mandelstam analyticity of its scattering amplitude, we use the numerical S-matrix bootstrap method to estimate various non-perturbative bounds on quartic and cubic (Yukawa) couplings.