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S E M I N A R

Fermions and higher spin

Speaker:

Kushal Chakraborty

University of the Witwatersrand

Date:
Tuesday, 19 March 2024

Time:
13h15-14h15 SAST

***Venue*:**
- P213, Physics Building, East Campus, WITS
- Online

Enquiries:
Email Farah-Naaz Samuels:
farah-naaz.samuels@wits.ac.za

ABSTRACT:
Scattering amplitudes are ubiquitous in QFT. Three-point functions, often considered as fundamental building blocks of S-matrix elements in the modern amplitude program, play a crucial role in the studies of higher point scattering amplitudes. In this talk, we will explore the three-point functions involving two massless fermions (Dirac) and one massive boson of arbitrary integer spin. We use a group theoretic approach to classify all such possible on-shell three-point functions in various spacetime dimensions. Eventually, this leads us to constrain cubic interaction terms in the Lagrangian.

WHO SHOULD ATTEND?
This is a colloquium talk intended to be accessible to honours and other postgraduate students. Familiarity with quantum field theory and group theory is NOT assumed.

All are welcome!

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