

Riccardo Bartocci  
Institut für Physik, THEP  
rbartocc@uni-mainz.de

Prisco Lo Chiatto  
Institut für Physik, THEP  
plochiat@uni-mainz.de

Nicklas Ramberg  
Institut für Physik, THEP  
nramberg@uni-mainz.de

Miroslava Mosso Rojas  
Institut für Physik, THEP  
mmossoro@uni-mainz.de

JOHANNES GUTENBERG  
UNIVERSITÄT MAINZ



# THEP Journal Club

June 3, 2016 at 12:30 p.m.  
Minkowski Raum, Staudinger Weg 7, 05-119

Pizza & Physics at Lunchtime

Leonardo de la Cruz  
JGU Mainz

## **Double copies of fermions and scattering amplitudes in gravity**

Calculating gravity amplitudes from the square of gauge theory amplitudes has been a successful method to obtain results in perturbative quantum gravity otherwise unpractical to compute. Two equivalent approaches are based on the Kawai-Lewellen-Tye (KLT) relations and the double copy procedure. We present a generalization of the KLT relations compatible with the double copy procedure that uses QCD-like amplitudes to build gravity amplitudes including massive double copies of fermions.

Contact:  
Riccardo Bartocci  
Institut für Physik, THEP  
rbartocc@uni-mainz.de

Prisco Lo Chiatto  
Institut für Physik, THEP  
plochiat@uni-mainz.de

Nicklas Ramberg  
Institut für Physik, THEP  
nramberg@uni-mainz.de

Miroslava Mosso Rojas  
Institut für Physik, THEP  
mmossoro@uni-mainz.de

