32nd International Symposium on Lattice Field Theory (Lattice 2014)



Contribution ID: 196

Type: Talk

Electromagnetic matrix elements for excited Nucleons

Thursday, 26 June 2014 16:15 (20 minutes)

Over the past decade there has been significant experimental interest into the electromagnetic excitation of nucleon resonances and their underlying structure. Given the large body of data that now exists, it is interesting to consider the expectations presented by QCD. Correlation matrix techniques present us with the ideal approach to extracting matrix elements of hadronic excitations. Following our recent success in identifying the underlying structure of the Lambda(1405) using this approach, we now consider the nucleon sector. In this talk we shall outline the method and present first results for the low-lying nucleon excited state spectrum in the positive and negative parity channels.

Primary author: Mr OWEN, Benjamin (University of Adelaide)

Co-authors: Mr MENADUE, Benjamin (NCI, Canberra and University of Adelaide); Prof. LEINWEBER, Derek (University of Adelaide); Dr MAHBUB, Selim (University of Adelaide); Dr KAMLEH, Waseem (University of Adelaide)

Presenter: Mr OWEN, Benjamin (University of Adelaide)

Session Classification: Hadron Structure