



Contribution ID: 368

Type: **Oral presentation**

Criticality and related properties of a non-compact 2+1D Thirring Model

Tuesday, 27 July 2021 05:45 (15 minutes)

Modelling the behaviour of strongly interacting fermion systems with correct symmetry properties presents significant challenges for lattice field theories. Investigating the suitability of domain wall fermions, we explore the locality and the Ginsparg-Wilson error of the Dirac operator in the context of a dynamical 2+1D non-compact Thirring model. We further investigate the eigenvalues of the Dirac operators and the Banks-Casher relation, as part of a broader search for criticality. Relations between twisted mass domain wall and overlap formulations are reviewed.

Primary author: Mr WORTHY, Jude (Swansea University)

Co-authors: Prof. HANDS, Simon (Swansea University); Prof. NARAYANAN, Rajamani (Florida International University)

Presenter: Mr WORTHY, Jude (Swansea University)

Session Classification: Theoretical developments and applications beyond particle physics

Track Classification: Theoretical developments and applications beyond particle physics