Contribution ID: **234**   Type: **Talk**

Temperature dependence of the chiral condensate in the Schwinger model with Matrix Product States

Tuesday, 24 June 2014 15:15 (20 minutes)

Tensor network methods form a family of efficient techniques of approximating quantum states. Their successes in quantum many-body physics have inspired their use for lattice gauge theories. We employed one of the tensor network techniques, called Matrix Product States, to investigate the Schwinger model in the Hamiltonian formulation. In this talk, we show our results for the temperature dependence of the chiral condensate in the massless model and we compare to the analytical formula derived by Sachs and Wipf.

Primary author: Dr SAITO, Hana (DESY Zeuthen)

Co-authors: Dr CIRAC, J. Ignacio (Max-Planck-Institute of Quantum Optics); Dr JANSEN, Karl (DESY Zeuthen); Dr CICHY, Krzysztof (DESY Zeuthen); Dr BANULS, Mari Carmen (Max-Planck-Institute of Quantum Optics)

Presenter: Dr SAITO, Hana (DESY Zeuthen)

Session Classification: Theoretical Developments

Track Classification: Theoretical Developments