Contribution ID: 13

Pfaffian Correlation Functions of Planar Dimer Covers

Wednesday, 7 September 2016 15:00 (1 hour)

In this talk I will explain an elementary derivation of the Pfaffian nature of boundary monomer correlation functions in the dimer-covering problem on planar graphs.

The boundary monomer correlation functions are then extended into a larger family of order-disorder correlation

functions which are shown to exhibit Pfaffian structure throughout the bulk. Key tools which will be discussed

involve combinatorial switching symmetries which are identified through the loop-gas representation of the double

dimer model, and topological implications of planarity. This is joint work with Michael Aizenman and Manuel Lainz Valcazar.

Presenter: Prof. WARZEL, Simone (TU Munich)