Christian Marboe (Humboldt University Berlin & Trinity College Dublin)

# A machine to compute the AdS/CFT spectrum at weak coupling

The Quantum Spectral Curve (QSC) formulates the spectral problem of the planar AdS/CFT correspondence in terms of a relatively simple Riemann-Hilbert problem. So far, the QSC has been solved for a variety of examples and limits. The presented work aims at automatising the weak coupling solution for any possible state. I will start with a brief recap of the representation theory of psu(2,2|4) and discuss the different sectors of single trace operators in N=4 SYM. I will then sketch how the QSC, including the full psu(2,2|4) Q-system, is solved order by order by walking through a few examples that display how operators in different sectors behave.