Contribution ID: **46**   Type: **not specified**

Two-dimensional S-matrices from unitarity cuts

Wednesday 25 September 2013 16:10 (20 minutes)

In this talk we will discuss recent developments in the application of unitarity techniques to 2-d integrable field theories. After outlining the general construction (mainly focussing on one loop, but with some comments on two), we will apply the method to various integrable theories, finding evidence that the one-loop S-matrix is cut-constructible. The final part of the talk will focus on the world-sheet theory for the light-cone gauge-fixed AdS_5 x S^5 superstring, where at one-loop we reproduce the S-matrix known from integrability techniques. To conclude I will make some brief comments on other integrable string backgrounds and related open questions.

Primary authors: Dr HOARE, Ben (Humboldt-Universität zu Berlin); Mr BIANCHI, Lorenzo (Humboldt-Universität zu Berlin); Dr FORINI, Valentina (Humboldt-Universität zu Berlin)

Presenter: Dr HOARE, Ben (Humboldt-Universität zu Berlin)

Session Classification: Parallel Session 3: Strings & Mathematical Physics

Track Classification: Strings & Mathematical Physics