

AdS/CFT Integrability

The AdS/CFT correspondence connects certain

- string theories on AdS spaces to
- conformal field theories formulated on $\mathcal{I}AdS$.

This string/gauge duality promises to clarify aspects of

- string-like behaviour of strong interactions
- quantum gravity as a part of string theory.

The duality remains unproven. Tests are desirable, but almost always prevented by strong/weak nature.

During past 5 years signs of integrability have appeared and are being exploited. Bethe Ansatz enable non-trivial tests of the duality.

These Lectures: Introduction into AdS/CFT & its integrable structures.

Outline:

- I Introduction ~~to~~ AdS/CFT & key models
- II Integrability in planar gauge theory & Bethe Ansatz
- III Integrability in string theory & classical spectral curve