Seminario INFN

Daniele Dorigoni

Durham University

terrà il Seminario:

Modular Constraints on N=4 Yang-Mills / Type IIB Superstring Holography

Abstract: I will describe a surprisingly simple representation of a class of integrated correlation functions of four superconformal primaries in the stress tensor multiplet of N=4 supersymmetric Yang-Mills theory with arbitrary simple gauge group, G. I then present exact formulae for these integrated correlators which are manifestly invariant under GNO electro-magnetic duality. For classical gauge groups, G=SU(N), SO(N), USp(2N), In the large-N limit these correlators are interpreted via holography in terms of the low-energy expansion of type IIB superstring amplitudes in $AdS_5 \times S^5$ or an orientifold thereof. In this way I recover the SL(2,Z)-invariant BPS interactions, arising in type IIB superstring amplitudes in the flat-space limit. From the asymptotic nature of the 1/N expansion I furthermore reconstruct non-perturbative contributions which holographically correspond to (p,q)-string world-sheet instantons.

Martedì 19 Dicembre 2023
alle ore 16:30
Aula Maxwell