EPFL

INSTITUTE OF PHYSICS IPHYS

High Energy Theoretical Physics Seminar

Lundi 29 juillet 2019 à 14h00

Salle BSP 727, (Cubotron) EPFL

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"Integrable aspects of the AdS/CFT duality"

Abstract:

I will review the integrable aspects of the duality which relates IIB superstrings on AdS5xS5 to the maximally supersymmetric 4D gauge theory. As the gauge theory is conformal it can be completely characterized by its two and three point functions. The two-point functions are determined by the scaling dimensions, which correspond to the energies of string states. These scaling dimensions also fix the space-time dependence of the three-point functions upto a coupling constant dependent quantity called the three-point coupling, which is related to the annihilation and creation of string states (the string vertex). I will explain, how integrability of the AdS/CFT correspondence can be used to calculate the scaling dimensions and the three-point couplings.