Contribution ID: **4** Type: **not specified**

Summation of UV divergences in maximally supersymmetric Yang-Mills theories in diverse dimensions

Wednesday, 9 September 2015 09:30 (30 minutes)

We consider the UV divergences in scattering amplitudes in maximally supersymmetric Yang-Mills theories in diverse dimensions: (D=6, N=2), (D=8, N=1) and (D=10, N=1) cases. The recurrence relation is found that allows one to get the leading divergences in all orders of PT for the four point amplitude. It is checked by explicit calculations in several loops. Infinite summation of the leading divergences leads to finite results in the limit when regularization is removed.
We discuss the meaning of this observation which might have the far reaching consequences.

Primary author: Prof. KAZAKOV, Dmitry (JINR)

Presenter: Prof. KAZAKOV, Dmitry (JINR)

Session Classification: Session 5