



Venerdì 27 Maggio 2016, ore 14:30, **Aula A**

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***New formulations for scattering amplitudes
 in $\mathcal{N}=4$ super Yang-Mills***

In this talk I will describe some novel formulations for scattering amplitudes in maximally supersymmetric Yang-Mills theory in four dimensions. Very recently it has been conjectured that amplitudes in planar $\mathcal{N}=4$ sYM are nothing else but the volume of a completely new mathematical object, called amplituhedron, which generalises the positive Grassmannian. After a broad review of the main ingredients involved, I will discuss some of the questions which remain open in this framework and describe new directions which promise to solve these issues.