

**SEMINARIO**  
**Departamentos de Física Teórica I y II**  
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**TITULO: Exponentiation property of Wilson line correlators**

**LUGAR: FACULTAD DE CIENCIAS FÍSICAS UCM**

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**ABSTRACT:**

Wilson lines, loops and their correlators play an essential role in various branches of quantum field theory. Recently the interest to the correlators of multiple Wilson lines has revived due to observation that the whole complex of infrared divergences for a scattering amplitude can be represented by a correlator of Wilson lines. One of the main properties of these correlators is the exponentiation property. The general review of the exponentiation is to be presented, as well as, the description of the exponentiated diagrams in terms of generating function. In particular, we show the exponentiation of the gauge theory amplitudes involving products of an arbitrary number of Wilson lines of arbitrary shapes, which generalizes the concept of web diagrams.