

# **Alireza Talebian: Stochastic effects of electromagnetic fields in the early universe**

*lundi 9 novembre 2020 14:00 (45 minutes)*

We extend the stochastic formalism to the setup of the models containing a  $U(1)$  gauge field such as anisotropic inflation and Primordial magnetogenesis during inflation. In this talk, we show that the stochastic noises of the electromagnetic perturbations have significant effects on the dynamics of the system. These effects can not be neglected even in the leading order in contrast with the stochastic noises of the scalar fields.