Contribution ID: **34**   Type: **Oral Presentation**

Driven non-equilibrium systems modeled with Markov processes

Tuesday, 4 July 2017 14:00 (20 minutes)

I will present in this talk my research on how fluctuations arise in nonequilibrium systems modeled by Markov processes and how to construct effective dynamics associated with these fluctuations.

To discuss this, I will present two simple stochastic models:

• A particle on a ring, evolving with a driving force and the potential under the influence of a stochastic force. For this model I will look at the current fluctuations observable.

• A stock market, modeled as geometric Brownian motion, where I will study the fluctuations of the occupation, corresponding to prices fluctuation.

Apply to be
 considered for a student
   award (Yes / No)?

yes

Level for award
 (Hons, MSc,
   PhD, N/A)?

PhD

Main supervisor (name and email)
and his / her institution

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National Institute for Theoretical Physics (NITheP)

Would you like to <br> submit a short paper <br> for the Conference
 Proceedings (Yes / No)?

No

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