

# 中央研究院數學研究所

Institute of Mathematics, Academia Sinica

## Taipei Postdoc Seminar

**Speaker** : Yuki Chino (National Center for Theoretical Science)

**Title** : Stochastic processes in random media

**Abstract** :

Our world is full of randomness, at least I believe so. How can we treat this randomness? You know, we can apply the probability theory and expect the future. We now have one example that the probability theory is connected to our real world. Random walk is a well-known model we apply the probability theory and is often treated as the walk of drunken person (I love beer so much but I've never become a random walker). Random walk is the most basic model of stochastic process and we can find a lot of application of it in physics, chemistry, biology, and economics. Although stochastic process itself is difficult, we have developed and considered it in random media. Today I will talk about such a model, called the stochastic processes in random media. The simple model, Random Walk in Random Environment (RWRE), is a model which can describe the phenomenon of DNA unzipping. The other models can also describe and give a certain answer of the physical, chemical and biological questions, for instance, the motion of polymers, percolation phenomenon and so on. The most interesting question of these models is how two or more randomnesses affect each other. I will be happy you enjoy my talk and drink beer together after my talk.

**Time** : 11:00 - 12:30, Wednesday, October 2, 2019

**Venue** : Room 638, Astro-Math. Buidling (NTU Campus)

**Organizer** : Sheng-Fu Chiu (Academia Sinica), Jia-Yuan Dai (National Center for Theoretical Sciences)

**Refreshment** : 10:30

[https://www.math.sinica.edu.tw/www/file\\_upload/conference/2016TPS/index.html](https://www.math.sinica.edu.tw/www/file_upload/conference/2016TPS/index.html)

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