



Hong Kong Probability Seminar

<https://sites.google.com/site/hkprobability/>

Date: October 5, 2018 (Friday)
Time: 2:00 – 5:30pm
Venue: Room 103, Run Run Shaw Building, HKU

- 2:00–3:30pm: Phillip Yam (CUHK)

Beyond classical portfolio selection

Abstract: Since the first introduction in Markowitz (1952), portfolio choice theory has been one of the key research topics in mathematical finance, and it is a formal one on striving for an ideal balance between the portfolio return and reducing its inherent risk inherited from various financial markets and operations. Yet, with the increasing sophistication of different markets, even in the presence of notable behavioral bias of investors, there is an urgent call for reframing the landscape of this traditional research area in response to new desire. Based on some of my recent research effort, I shall aim to share with my view on some possible new directions that can cater those practical considerations.

- 3:30–4:00pm: Coffee break
- 4:00–5:30pm: Pierre Tarrès (NYU Shanghai)

Self-interacting random walks and statistical physics

Abstract: We start by a review of recent questions and results on self-interacting random walks. Then we explain how the Edge-reinforced random walk, introduced by Coppersmith and Diaconis in 1986, is related to several models in statistical physics, namely the supersymmetric hyperbolic sigma model studied by Disertori, Spencer and Zirnbauer (2010), the random Schrödinger operator and Dynkin's isomorphism. These correspondences enable us to show recurrence/transience results on the Edge-reinforced random walk, and they also allow us to provide insight into these models. This work is joint with Christophe Sabot, and part of it is also in collaboration with Margherita Disertori, Titus Lupu and Xiaolin Zeng.

All are welcome

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