Stochastic Webinar

Solving singular stochastic PDEs using renormalization group flow equation

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Paweł Duch is a postdoctoral researcher at Adam Mickiewicz University in Poznań. Before coming to Poznań, he was a post-doc at Max Planck Institute for Mathematics in the Sciences in Leipzig. He received my PhD in 2017 from the Jagiellonian University in Kraków.

Abstract: The macroscopic or mesoscopic behavior of many physical systems interacting with a random environment can be described in terms of non-linear stochastic partial differential equations. Such equations are usually very singular and cannot be solved using standard tools from PDE theory. In the talk, I will present a new technique of solving singular stochastic PDEs based on the renormalization group flow equation. The technique is applicable to a large class of semi-linear parabolic or elliptic SPDEs with fractional Laplacian and covers equations in the whole subcritical regime. A nice feature of the method is that it avoids the algebraic and combinatorial problems arising in different approaches. Based on arXiv:2109.11380 and arXiv:2201.05031.

讲座时间：

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会议地点：ZOOM会议室会议ID：354 143 7366 密码：123456

主办单位：

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