

Institute for Applied Mathematics, Bonn University

Oberseminar Stochastik

Thursday, 21 November 2024, 16:30

Lipschitz-Saal (LWK 1.016)

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Point processes and random resonances

Resonances of wave equations describe localization of energy on non-homogeneities for large times. The asymptotics of resonances is usually studied on different levels of detalization by means of counting functions in growing complex sets and by resonance-free regions. In the case of stochastic media, it is desirable to describe random sets of resonances by point processes. The aim of the talk is to combine asymptotic studies of resonances with the stochastic settings where a 3-D Schrödinger operator has a singular random potential consisting of a finite number of delta-potentials with random positions. If time allows us, more sophisticated stochastic models stemming from Photonics will be also discussed. The talk is based partially on the joint paper with Sergio Albeverio (https://doi.org/10.1007/978-3-030-68490-7_2).