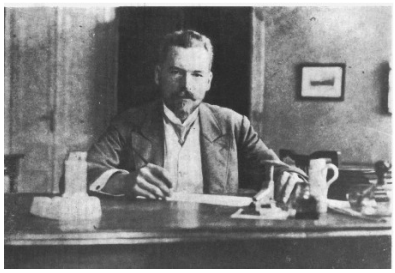

Contribution ID: **46** Type: **Contributed talk**

Inertial Lévy flights in bounded domains

Wednesday, 29 September 2021 13:40 (20 minutes)

The escape from a given domain is one of the fundamental problems in statistical physics and the theory of stochastic processes. In this talk we will explore properties of the escape of an inertial particle driven by Lévy noise from a bounded domain, restricted by two absorbing boundaries. The properties of the mean first passage time for the integrated Ornstein–Uhlenbeck process driven by Lévy noise will be compared to its Brownian counterpart i.e. randomly accelerated process. Mean first passage time considerations will be complemented by analysis of the escape velocity and energy along with their sensitivity to initial conditions.

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