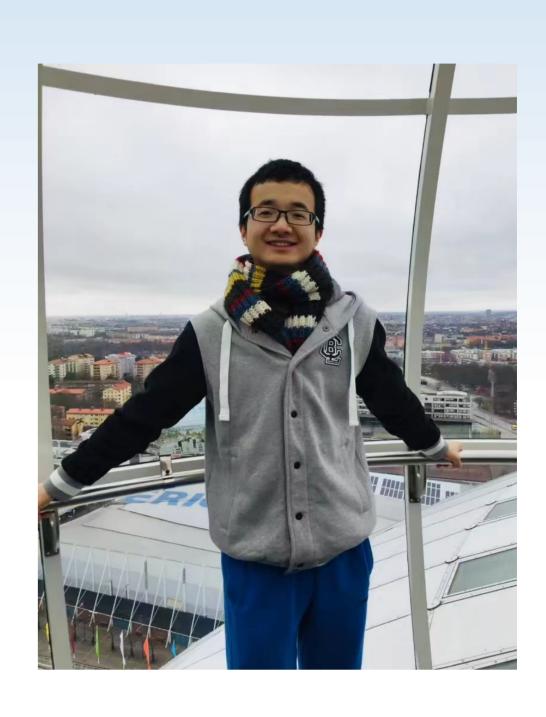*Stochastic Webinar*

Anomalous dissipation in passive scalar driven by typical Euler flows

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Abstract：For the scalar advection-diffusion equation, according to physical predictions, the advecting velocity field, if turbulent, may enhance diffusion so strongly that a nontrivial dissipation of energy remains in the inviscid limit. This phenomenon – the strict energy inequality in the transport equation obtained as an inviscid limit – is referred to as 'anomalous dissipation'. I will present a recent joint result with Burczak and Székelyhidi, proving that anomalous dissipation really occurs for scalars advected by a (typical) solution of Euler equation (with its regularity below the 1/3-Hölder continuity, the Onsager threshold). Consequently, we obtain non-uniqueness of the respective transport equations.

讲座时间：

2024.3.27周三下午16：00-17：00
会议地点：ZOOM会议室会议ID：3541437366密码：123456

主办单位：
中科院数学与系统科学研究院应用数学所
北京理工大学数学与统计学院