

## Oberseminar Stochastik

Im Rahmen des Oberseminars Stochastik wird

**Prof. Dr. Ilya Pavlyukevich**  
(Institute of Mathematics, Friedrich Schiller University Jena)

am

***Dienstag, den 23. Januar 2024***

über das Thema

**“STOCHASTIC ENERGY-BALANCE MODEL WITH A MOVING ICE LINE“**

vortragen.

Abstract: In 2013, E. Widiasih proposed and analysed a deterministic one-dimensional Budyko--Sellers energy-balance climate model with a moving ice-line. In this talk, we extend this model to the stochastic setting and study it within the framework of stochastic slow-fast systems. We derive the dynamics for the ice line in the limit of a small parameter as a solution to a stochastic differential equation. The stochastic approach enables the study of co-existing (metastable) climate states as well as the transition dynamics between them.

This is the joint work with M. Ritsch (FSU Jena).

Der Vortrag findet um **14:15 Uhr (Dauer max. 1 Stunde)** im Raum **30.03.007** statt. Alle Interessenten sind herzlich eingeladen!

gez.:

Prof. Dr. Markus Bibinger  
PD Dr. habil. Anton Klimovsky