

# INVITATION TO THE DOCTORAL SEMINAR

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**Iryna Vasylieva**  
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**“Partial stabilization of nonlinear mechanical systems with  
random disturbances”**

📍 N.2.35

📅 Friday, 10 July 2020

🕒 1:00 p.m.

## **Abstract**

The talk will be devoted to the problem of partial stabilization of mechanical systems, described by Ito stochastic differential equations. The considered problem is related to the asymptotic stability property of invariant sets and has important applications in mechanics and engineering. Sufficient conditions for the asymptotic stability of an invariant set are proposed by using a stochastic version of LaSalle’s invariance principle. Mechanical examples are presented to illustrate the efficiency of the obtained controllers.

Christian Pötzsche and the Department of Mathematics look forward to seeing you at the talk!