# Inn'formal Probability Seminar

**Dario Stein (Radboud University Nijmegen)**

"Introduction to Probabilistic Programming and Higher-Order Probability"

**Abstract**

Probabilistic Programming is a novel paradigm where statistical queries can be embedded in a general-purpose programming language, allowing for highly expressive Bayesian models.

I will give a practical introduction to probabilistic programming and overview the strengths and weaknesses of this approach.

Analyzing the mathematical meaning of probabilistic programs get us into surprising difficulty: Random functions are of central importance in programming, but they turn out to be difficult to describe using measure-theoretic foundations. I will sketch how mathematical structures called quasi-Borel spaces offer a solution to this problem

Monday | 16.01.2023 | 16:15

SR 609 | civil engineer building