FRIEDRICH-SCHILLER-UNIVERSITÄT JENA
Fakultät für Mathematik und Informatik

Institut für Mathematik

Seminar zur Stochastik

Donnerstag, 27. Juni 2024
15 Uhr c.t.
SR 122, August-Bebel-Str. 4

Prof. Dr. Michael Högele
(Universidad de los Andes, Bogotá)

“On the tradeoff between rates of almost sure convergence and overshoot integrability”

Abstract: In this talk we start with an elementary, but useful quantitative generalization of the first Borel-Cantelli lemma. The idea is to translate good rate of convergence of probability events into higher order moments of the overlap statistics and the modulus of convergence. Our results quantify almost sure convergence in terms of the number of occurrences of the error events, and the last error if its occurrence, which appear in the convergence in probability. We provide a sample of applications, such as the strong law of large numbers, the presence of a LDP, the method of moments in statistics and numerical analysis. In the end we present results on martingale convergence, such as the convergence of Polya urns.

This is joint work with Luisa F. Estrada and A. Steinicke.

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Alle Interessierte sind herzlich eingeladen

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