

Kolloquium des Departments Mathematik/Informatik

am 24.05.2023, 16:30 Uhr im Hörsaal des Departments Mathematik/Informatik

Prof. Dr. Gábor Pete

(Rényi Institute + TU Budapest)



Vortragstitel:

Random-turn games and computing Boolean functions

Zusammenfassung:

Imagine a version of chess where each player has 100 euros, and, instead of alternating moves, before each turn they stake some portion of their fortunes, then flip a coin that is biased according to the stakes, and the winner of the coin toss makes the next move. A metaphor for how to optimally convert one type of positional advantage into another (e.g., think of corruption).

This would of course be too difficult to analyze mathematically. I will consider simpler random-turn games, and will also explain some surprising ways in which they can be applied to the question of when one can compute a Boolean function of independent random bits from a small subset of the input.

Based on joint works with Alan Hammond <https://arxiv.org/abs/2206.08300> and Pál Galiczka <https://arxiv.org/abs/2010.10483>.

Um 16 Uhr gibt es Tee in der Bibliothek der Mathematik, Weyertal 86 – 90, 50931 Köln, Erdgeschoss Raum 0.18 – 0.20. Alle Interessent_innen sind herzlich eingeladen.