Probability Seminar

Title: Shuffling via transpositions

Speaker: Evita Nestoridi (Stony Brook University)

Date: Wed 26th February 2025 at 2:00PM

Location: E0.32 (beside Pi restaurant)

Abstract: In their seminal work, Diaconis and Shahshahani proved that shuffling a deck of n cards sufficiently well via random transpositions takes $(1/2)n \log n$ steps. Their argument was algebraic and relied on the combinatorics of the symmetric group. In this talk, I will focus on a generalization of random transpositions and I will discuss the underlying combinatorics for understanding their mixing behavior and indeed proving cutoff. The talk will be based on joint work with S. Arfaee.