

Central limit theorems for block characters of the infinite symmetric group

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Abstract

Exchangeability of an infinite sequence of noncommutative random variables implies the existence of a central limit law for this sequence. So far little is known on the concrete form of the resulting central limit laws. Very recently we have identified these laws for the sequence of star generators of the infinite symmetric group with respect to its block characters. Given a block character, the emerging central limit law equals the distribution of a GUE random matrix, up to a convolution of the central limit law with a Gaussian distribution. My talk is based on joint work with Alexandru Nica.