

Entropy of Schur-Weyl Measures

Sevak Mkrtchyan

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Relative dimensions of isotypic components of N -th order tensor representations of the symmetric group on n letters give a Plancherel-type measure on the space of Young diagrams with n cells and at most N rows. It was conjectured by G. Olshanski that dimensions of isotypic components of tensor representations of finite symmetric groups, after appropriate normalization, converge to a constant with respect to this family of Plancherel-type measures in the limit when N/\sqrt{n} converges to a constant. The main result of the paper is the proof of this conjecture.

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