

# Equidistribution for Partition Statistics and Topological Invariants

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One of the most natural questions regarding partition statistics or topological invariants is their asymptotic behaviour as  $n$  gets large. A slightly more refined question is to ask about the distribution on arithmetic progressions - are they equidistributed or not? I will present several recent results involving  $t$ -hooks, Betti numbers of certain Hilbert schemes, and other objects, as well as a general framework. Our central tools are both the Hardy-Ramanujan and Wright's circle method. This is based on joint works with Kathrin Bringmann, Giulia Cesana, William Craig, and Ken Ono.