Minisymposium 4 - Spectral Theory and Ergodic Operators

On the universality of random matrices

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Eigenvalues of random matrices display universal behavior in a twofold way. On the one hand local eigenvalue statistics such as the spacing distributions seem to depend for large matrix dimensions only on the symmetries of the matrices but not on the details of the chosen probability measure. On the other hand these distributions appear in many different areas of mathematics (statistics, combinatorics, number theory) and physics. In this talk both aspects of this universal behavior will be discussed.