

SOME RECENT MATHEMATICAL RESULTS IN QUANTUM CHAOS

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This talk will be a review of recent progress in the area of Quantum Chaos. It will focus in particular on work done by the Network Mathematical Aspects of Quantum Chaos (MAQC), including results on quantum spectral statistics, quantum ergodicity, wavefunction fluctuation statistics, the first rigorous results on strong scarring of eigenfunctions, quantum graphs, quantum maps, and connections between random matrix theory and number theoretical L-functions such as the Riemann zeta function.