

## **Benjamin Schlein**

### *Spectral properties of Wigner matrices*

Ensembles of Wigner matrices consist of  $N$  times  $N$  hermitian matrices whose entries are (up to the symmetry constraints) independent and identically distributed random variables. In this talk I am going to present recent results concerning the statistical properties of the eigenvalues of Wigner matrices, in the limit of large  $N$ . In particular, I will discuss a proof of universality; the local eigenvalue correlations always converge to the so called Wigner-Dyson distribution, independently of the choice of the probability law of the entries.