



Mathematical Physics

New estimators of spectral distributions of Wigner matrices

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We introduce kernel estimators for the semicircle law. In this first part of our general theory on the estimators, we prove the consistency and conduct simulation study to show the performance of the estimators. We also point out that Wigner's semicircle law for our new estimators and the classical empirical spectral distributions is still true when the elements of Wigner matrices don't have finite variances but are in the domain of attraction of normal law.

Comments: 15 pages, 4 figures

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