

Asymptotics for the normalized spectral function

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The Stieltjes transform will be used to obtain asymptotics for the normalized spectral function of a quadratic form $AA' + \frac{1}{n}XX'$, where A is non-random matrix and $X \sim N_{p,n}(0, \Sigma, \Psi)$, where p and n are respectively - the number of variables and observations, such that $\frac{p}{n} \rightarrow c > 0$. The density will be derived explicitly for the case $A = 0$ and $X \sim N_{p,n}(0, \sigma^2 I, I)$.

References

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