

Mathematics and CS Seminar

On the operator norm of a random matrix with a polynomially decaying metric correlation structure

Jana Reker (IST Austria)

Host: Laszlo Erdös

In this talk, we consider a \$N\timesN\$ Hermitian random matrix with a polynomially decaying metric correlation structure.

Trivial a priori bound shows that the operator norm of this model is stochastically dominated by \$\sqrt{N}\$. However, by calculating the trace of the moments of the matrix and using the summable decay of the cumulants, the estimate on the norm can be improved to a bound of order one. This is a rotation project with László Erdös.

Thursday, January 21, 2021 04:15pm - 05:15pm

IST Austria Campus online via Zoom



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