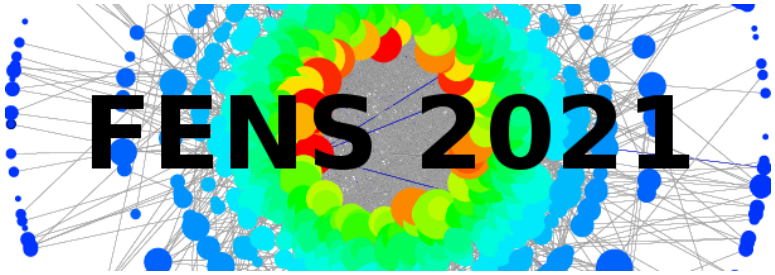

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Generic Features in the Spectral Decomposition of Correlation Matrices

Friday, 2 July 2021 17:21 (1 minute)

We show that correlation matrices with particular average and variance of the correlation coefficients have a notably restricted spectral structure. Applying geometric methods, we derive lower bounds for the largest eigenvalue and the alignment of the corresponding eigenvector. We explain how and to which extent, a distinctly large eigenvalue and an approximately diagonal eigenvector generically occur for specific correlation matrices independently of the correlation matrix dimension.

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Session Classification: Poster session