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Food For Thought Seminar

Yuchao Liu

UCSD

Fantastic elevated submatrices and where to find them

Abstract:

We consider the problem of finding an elevated submatrix inside a large, noisy matrix. We are interested in both the detection problem (detecting the existence of the elevated submatrix) and the localization problem (find out the row and column index sets of the submatrix). Treating the elevated mean as the signal strength, we illustrate the fundamental signal boundaries of detection and localization, and propose estimators that reach the boundaries. The relationship of detection and localization problems will also be addressed.

Monday, November 13, 2017
12:00 PM
AP&M 5402

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