

Decoding Community Structure in Graphs

Allison Beemer

University of Wisconsin-Eau Claire

Detection of communities in a network entails identifying clusters of densely connected vertices; the area has a variety of important applications and a rich literature. In this talk, we situate the problem in the realm of error correcting codes by viewing a graph as a noisy version of the assumed underlying communities. In particular, we present an encoding of community structure, discuss the resulting code's parameters, and present a novel decoding algorithm to estimate communities given an observed dataset.

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