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Gerandy Brito*, Department of Mathematics., University of Washington, PoBox 354350, Seattle, WA 98195, and **Ioana Dumitriu** and **Kameron Harris**. *Spectral gap of random bipartite biregular graphs with application to clustering.*

We discuss how the study of the spectrum of the non backtracking operator can be used to understand clustering properties in networks with certain regularity properties. Our model is a natural extension of the Regular Stochastic Block Model introduced by the first two authors and coauthors. The results presented are of independent interest in the context of spectral theory of random graphs. Based on join work with Ioana Dumitriu and Kameron Harris. (Received February 27, 2017)