

Graph Energy of Random Geometric Graphs

Nayeong Kong* IUE, Suman Balasubramanian*, Seonguk Kim DePauw University

This talk considers the graph energy of random geometric graphs on the unit sphere. In the first part of the talk, we will introduce random geometric graphs on the unit sphere. Then, we will compute the limit of the distribution of eigenvalues of random geometric graphs, called Empirical Spectral Distributions (ESD). In the second part of this talk, using the limit of ESD, we will compute the limit of graphs energy of random geometric graphs and visualize by numerical simulation with Python code.

Keywords: graph energy, random geometric graphs, empirical spectral distribution