

Introduction to Random Graphs

Nathan B. Shank, Moravian College, Bethlehem, PA – 18018

Abstract

Many different random graphs have been studied recently, especially since the 1960's. They have been connected with many different areas including networks, biology, sociology, and forensics. Random graphs and Euclidean graphs will be explored at different levels. Examples of these graphs will be shown along with different properties and their applications. Probabilistic aspects of these graphs will be introduced, but at a basic level. Techniques in probability theory, used to explore different probabilistic aspects of random graphs, will be discussed. If time permits, some unsolved problems in random graphs and current research interests will be covered.

Keywords: random graph, Euclidean graph, probability.