

**2014 Erdos Colloquium**  
**Department of Mathematics**  
**University of Florida**



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*New Directions in Graph Theory*

**ABSTRACT:** Nowadays we are surrounded by numerous large information networks, such as the WWW graph, the telephone graph and various social networks. Many new questions arise. How are these graphs formed? What are basic structures of such large networks? How do they evolve? What are the underlying principles that dictate their behavior? How are subgraphs related to the large host graph? What are the main graph invariants that capture the myriad properties of such large sparse graphs and subgraphs. In this talk, we discuss some recent developments in the study of large sparse graphs, with roots in random graph theory tracing back to Erdos, and speculate about future directions in graph theory.

4:05-4:55 pm  
April 21, 2014  
LIT 101  
Refreshments at 3:30  
in LIT 339