Algorithms for Massive Graphs via Linear Sketching

Andrew McGregor
University of Massachusetts

3/23/2016 at 11:00 am
Core A (Room 301)

Abstract

In this talk, we will survey recent work on using random linear projections, a.k.a. sketches, to analyze massive graphs. Sketches are useful in a variety of computational models including the dynamic graph stream model where the input is defined by a stream of edge insertions and deletions that need to be processed in small space. A large number of problems have now been studied in this model including edge and vertex connectivity, spectral sparsification, triangle counting, densest subgraph, correlation clustering, vertex cover, and matching.

Organizer(s): Eric Allender, Pranjal Awasthi, Michael Saks and Mario Szegedy