Local algorithms on bounded degree graphs

We focus on the question of which properties and parameters of a very large bounded-degree graph can be estimated by a constant-time sampling. A strongly related concept is the local algorithm on bounded-degree graphs, which means that we construct a structure, say a large independent set, in such a way that we decide about each vertex depending only on its constant radius neighbourhood. I will give a brief introduction to these topics with some recent results, open questions, and connections to other topics.

There will be refreshments for the attendees. Everyone is welcome.