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**LÁSZLÓ LOVÁSZ**, Microsoft

*Very large graphs*

There are many huge graphs whose structure we want to understand, from the internet to the human brain. What kind of questions are meaningful about these graphs? When should we say that two such graphs are similar? How can we "approximate" such graphs, either by a much smaller graphs or by a continuous object, so that important properties are not lost?

These questions have a rather complete answer in the case of dense graphs, and partial answers for graphs with bounded degrees.

This is a summary of joint work with Jennifer Chayes, Christian Borgs, Vera Sos, Balazs Szegedy and Katalin Vesztergombi.