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**Bruce Reed\***, breed@cs.mcgill.ca. *The Structure and Chromatic Number of H-free Graphs.*

We present a conjecture about the structure of typical graphs without a specified graph  $H$  as an induced subgraph. We show that almost every  $H$ -free graph does indeed have the conjectured structure when  $H$  is a cycle or a tree. We deduce that for such graphs, the chromatic number is asymptotically the clique number. This is joint work with Lema Yuditsky and Alex Scott. (Received June 19, 2015)