

1126-05-157

Zoltán Füredi, Alfréd Rényi Institute, **Alexandr Kostochka**, University of Illinois at Urbana-Champaign, **Ruth Luo*** (ruthluo2@illinois.edu), University of Illinois at Urbana-Champaign, and **Jacques Verstraete**, University of California San Diego. *On the number of edges and other subgraphs in graphs without long cycles.*

We consider two classical theorems for graphs without long cycles. The first theorem, due to Erdős, provides an upper bound for the number of edges in an n -vertex graph with minimum degree d and no hamiltonian cycle. The second theorem is Kopylov's strengthening of the Erdős–Gallai theorem for cycles and paths. It gives an upper bound for the number of edges in a 2-connected n -vertex graph with circumference less than k . In this talk we present stability versions of both theorems as well as generalizations in which we maximize the number of other fixed subgraphs in a graph without long cycles. (Received January 10, 2017)