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Choongbum Lee* (choongbum.lee@gmail.com), Department of Mathematics, UCLA, Los Angeles, CA 90095, and **Hao Huang** (huanghao@math.ucla.edu), Department of Mathematics, UCLA, Los Angeles, CA 90095. *Quasi-randomness of graph balanced cut properties.*

Quasi-random graphs can be informally described as graphs whose edge distribution closely resembles that of a random graph. They have been a subject of intensive study during the last two decades and have seen numerous applications both in Combinatorics and Theoretical Computer Science.

Starting with the work of Thomason and Chung, Graham, and Wilson, there have been many works which established the equivalence of various properties of graphs to quasi-randomness, several of which related to the number of edges (or graphs) across a given cut. In this talk, we provide a new condition in this direction which is equivalent to quasi-randomness. This result answers an open question raised independently by Janson, and Shapira and Yuster. (Received August 12, 2010)