

Rainbow clique subdivisions

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Abstract

In this talk, we show that for any integer $t \geq 2$, every properly edge colored n -vertex graph with average degree at least $(\log n)^{2+o(1)}$ contains a rainbow subdivision of a complete graph of size t . Note that this bound is within a log factor of the lower bound. This also implies a result on the rainbow Turán number of cycles.

Keywords: subdivisions, rainbow Turán number, sublinear expander