Combinatorics Seminar

The asymptotics of $r(4, t)$

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Abstract: I will give an overview of recent work, joint with Jacques Verstraete, where we gave an improved lower bound for the off-diagonal Ramsey number $r(4, t)$, solving a long-standing conjecture of Erdős. Our proof has a strong non-probabilistic component, in contrast to previous work. This approach was generalized in further work with David Conlon, Dhruv Mubayi and Jacques Verstraete to off-diagonal Ramsey numbers $r(H, t)$ for any fixed graph $H$. We will go over of the main ideas of these proofs and indicate some open problems.

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Mathematics
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