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Seminario de Grafos

Speaker: Vicente Sandoval (DIM)

Title: The Ramsey Number of Hypergraph Cycles.

Abstract: In 1999, Łuczak proved that the three-coloured Ramsey number of the cycle of length \$n\$ is less than \$(4+o(1))n\$, presenting a technique that, conceptually, through the use of Szemerédi's regularity lemma, reduces the problem to that of finding the Ramsey number of a connected matching. Ever since then, Łuczak's method has been applied successfully in many results.

There are many natural ways to generalize cycles for \$k\$-uniform hypergraphs. In this talk, we first present a brief survey of the Ramsey numbers of Berge, loose, and tight cycles. Then we examine the use of Łuczak's connected matching method on hypergraphs, with a focus on the loose cycle case.

07/10, Sala John von Neumann, 7mo piso, 12.00 hrs.

