

Meeting: 1001, Evanston, Illinois, SS 2A, Special Session on Extremal Combinatorics

1001-05-184 **Jozef Skokan*** (jozef@member.ams.org), Instituto de Matemática e Estatística, Rua do Matão 1010, 05508-090 São Paulo, SP, Brazil. *Ramsey number of hypergraph cycles II.*

We use a term *tight cycle* on t vertices for the 3-uniform hypergraph \mathcal{C}_t consisting of the vertex set $\{v_1, \dots, v_t\}$ and the t triples $v_1v_2v_3, \dots, v_{t-2}v_{t-1}v_t, v_{t-1}v_tv_1, v_tv_1v_2$. It is shown that the Ramsey number for the 3-uniform hypergraph *tight cycle* with t vertices is asymptotically equal to $4t/3$ if t is divisible by three, and $2t$ otherwise. The proof uses the regularity lemma for hypergraphs of Frankl and Rödl.

This is a joint work with P. Haxell, T. Łuczak, Y. Peng, A. Ruciński, V. Rödl and M. Simonovits. (Received August 24, 2004)