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

1001-05-323 **P Haxell*** (pehaxell@math.uwaterloo.ca), C &O Department, University of Waterloo, Waterloo, Ontario N2L 3G1, Canada, and **T. Luczak**, **Y. Peng**, **V. Rodl**, **A. Rucinski**, **M. Simonovits** and **J. Skokan**. *The Ramsey number for hypergraph cycles I.*

Let $\mathcal{C}_t$ denote the 3-uniform hypergraph *loose cycle*, that is the hypergraph with vertices $v_1, \ldots, v_t$ and edges $v_1v_2v_3$, $v_3v_4v_5$, $v_5v_6v_7, \ldots, v_{t-1}v_tv_1$. The *Ramsey number* for $\mathcal{C}_t$ is the smallest N such that every red-blue colouring of the edges of the complete 3-uniform hypergraph with N vertices contains a monochromatic copy of $\mathcal{C}_t$. We prove that the Ramsey number for $\mathcal{C}_t$ is asymptotically equal to $5t/4$. (Received August 30, 2004)