

**Meeting:** 1007, Santa Barbara, California, SS 3A, Special Session on Recent Advances in Combinatorial Number Theory

1007-05-94            **Terence C Tao\*** ([tao@math.ucla.edu](mailto:tao@math.ucla.edu)), Dept. Mathematics, UCLA, 405 Hilgard Ave, Los Angeles, CA 90095. *An information theoretic approach to hypergraph regularity.*

We present an approach to the graph and hypergraph regularity and removal lemmas (which in particular imply results such as Szemerédi's theorem on arithmetic progressions) using the Shannon entropy inequalities. (Received February 06, 2005)