1079-05-180   **John E Lenz*** (`lenz@math.uic.edu`) and **Dhruv Mubayi**. *Multicolor Ramsey Numbers for Complete Bipartite Versus Complete Graphs.* Preliminary report.

Let $H_1, \ldots, H_k$ be graphs. The multicolor Ramsey number $r(H_1, \ldots, H_k)$ is the minimum integer r such that in every edge-coloring of K_r by k colors, there is a monochromatic copy of H_i in color i for some $1 \leq i \leq k$. This talk will focus on the multicolor Ramsey number $r(K_{2,t}, \ldots, K_{2,t}, K_m)$; both upper and lower bounds will be discussed. Several different constructions are used for the lower bounds, including the random graph and explicit graphs built from finite fields. A technique of Alon and Rödl using the probabilistic method and spectral arguments is employed to supply tight lower bounds. A sample result is $c_1 m^2 t / \log^4(mt) \leq r(K_{2,t}, K_{2,t}, K_m) \leq c_2 m^2 t / \log^2 m$ for some constants c_1 and c_2. (Received January 11, 2012)