1064-05-214 **Jane V. Butterfield*** (jbutter2@illinois.edu), Department of Mathematics, University of Illinois, 1409 W. Green Street, Urbana, IL 61801, and **József Balogh**. *Online Ramsey Games for Triangles in Random Graphs.*

In the online F-avoidance edge-coloring game with r colors, a graph on n vertices is generated by at each stage randomly adding a new edge. The player must color each new edge as it appears; his goal is to avoid a monochromatic copy of F. Let $N_0(F, r, n)$ be the threshold function for the number of edges that the player is asymptotically almost surely able to paint before he loses. Even when $F = K_3$, the order of magnitude of $N_0(F, r, n)$ is unknown for $r \geq 3$. In particular, the only known upper bound is the threshold function for the number of edges in the offline version of the problem, in which an entire random graph on n vertices with m edges is presented to the player to be r edge-colored. We improve the upper bound for the online triangle-avoidance game with r colors, providing the first result that separates the online threshold function from the offline bound for $r \geq 3$. This supports a conjecture of Marciniszyn, Spöhel, and Steger that the known lower bound is tight for cliques and cycles for all r. (Received September 09, 2010)