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Ryan R. Martin* (rymartin@iastate.edu), 396 Carver Hall, Department of Mathematics, Iowa State University, Ames, IA 50010, and **Jozsef Balogh** and **András Pluhar**. *The diameter game*.

A large class of the so-called Positional Games are defined on the complete graph on n vertices. The players, Maker and Breaker, take the edges of the graph in turns, and Maker wins iff his subgraph has a given—usually monotone—property. In this talk, we introduce the d -diameter game, which means that Maker wins iff the diameter of his subgraph is at most d . We investigate the biased version of the game; i.e., when the players may take more than one, and not necessarily the same number of edges, in a turn. The 2-diameter game has the property that Breaker wins the game in which each player chooses one edge per turn, but Maker wins as long as he is permitted to choose 2 edges in each turn whereas Breaker can choose as many as $0.25n^{1/7}/(\ln n)^{3/7}$.

In addition, we investigate d -diameter games for $d > 1$. The diameter games are strongly related to the degree games. Thus, we also provide a generalization of the degree game for the biased case. (Received September 10, 2006)