1154-03-1084 **Logan Crone*** (logancrone@my.unt.edu), **Lior Fishman** and **Stephen Jackson**. *Determinacy of Schmidt's Game and other Intersection Games.*

Schmidt's game, and other similar intersection games have played an important role in recent years in applications to number theory, dynamics, and Diophantine approximation theory. These games are real games, that is, games in which the players make moves from a complete separable metric space. The determinacy of these games trivially follows from the axiom of determinacy for real games, $\mathsf{AD}_{\mathbb{R}}$, which is a much stronger axiom than that asserting all integer games are determined, AD. We show that the determinacy of certain real intersection games that satisfy a strategy simplification hypothesis follows from AD alone, and show that Schmidt's game on $\mathbb{R}$ satisfies the strategy simplification hypothesis. (Received September 13, 2019)