1067-35-463      **Yu-Jui Huang\*** (`jayhuang@umich.edu`), 2074 East Hall, 530 Church Street, Ann Arbor, MI 48109, and **Erhan Bayraktar** (`erhan@umich.edu`). *On the Multi-dimensional Controller-and-stopper Games.*

We consider a zero-sum stochastic differential controller-and-stopper game in which the state process is a controlled jump-diffusion evolving in a multi-dimensional Euclidean space. In this game, the controller affects both the drift and the volatility terms of the state process. Under appropriate conditions, we show that the lower value function of this game is a viscosity solution to an obstacle problem for a Hamilton-Jacobi-Bellman equation, by generalizing the weak dynamic programming principles introduced in Bouchard and Touzi (2010). (Received September 05, 2010)