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Ioannis Karatzas and Ingrid Mona Zamfirescu*

(ingrid-mona_zamfirescu@baruch.cuny.edu), One Bernard Baruch Way, B6-230, New York, NY 10010. Martingale Approach to Stochastic Differential Games of Control and Stopping.

We develop a martingale approach for studying continuous-time stochastic differential games of control and stopping, in a non-Markovian framework and with the control affecting only the drift term of the state-process. Under appropriate conditions, we show that the game has a value and construct a saddle pair of optimal control and stopping strategies. Crucial in this construction is a characterization of saddle pairs in terms of pathwise and martingale properties of suitable quantities. (Received February 21, 2007)