Dynamic advertising and pricing of durable goods in competitive markets

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We analyze particular classes of deterministic differential games. Their analysis is motivated by the quest for controlling the sales of durable goods in competitive markets by dynamically adjusting advertising expenditure and prices. For two special classes of infinite horizon models with [direct] network externalities we derive solution formulae of the optimal policies and of the optimal value function of each player. Moreover, we show how to evaluate the sales process of each firm. For a discrete state space, we will analyze stochastic variants of the differential games.

This talk is based on joint work with R. Schlosser.