OPTIMAL CONTROL PROBLEMS ARISING IN MARKETING MODELS

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Abstract

The diffusion in time of a new product in a monopolistic or oligopolistic market can be described by a system of evolution equations (PDE, ODE, DDE) containing one or more control parameters (advertising, prices, plant locations, ...). The productors choose the control parameters in order to maximize their (discounted) prots. Hence an optimal control problems (in the case of a monopoly) or a dynamic game (in the case of an oligopoly) has to be solved. A specic model is proposed and an exhaustive description of its solution is given.