Abstract

We analyze relative performance of stochastic and deterministic mechanisms in an environment that has been extensively studied in the literature on communication (e.g., [Vincent P. Crawford, Joel Sobel, Strategic information transmission, Econometrica 50 (6) (1982) 1431–1451]) and optimal delegation (e.g., [Bengt Holmström, On the theory of delegation, in: M. Boyer, R.E. Kihlstrom (Eds.), Bayesian Models in Economic Theory, North-Holland, 1984, pp. 115–141]): a principal-agent model with hidden information, no monetary transfers, and single-peaked preferences. We demonstrate that under the common assumption of quadratic payoffs and a certain regularity condition on the distribution of private information and the agent's bias, the optimal mechanism is deterministic. We also provide an explicit characterization of this mechanism.

http://dx.doi.org/10.1016/j.jet.2008.06.008