

## Abstract

We study innovation contests with asymmetric information and identical contestants, where contestants' efforts and innate abilities generate inventions of varying qualities. The designer offers a reward to the contestant achieving the highest quality and receives the revenue generated by the innovation. We characterize the equilibrium behavior, outcomes and payoffs for both nondiscriminatory and discriminatory (where the reward is contestant-dependent) contests. We derive conditions under which the designer obtains a larger payoff when using a discriminatory contest and describe settings where these conditions are satisfied.

JEL classification: O31, D44, J71

Keywords: Contests, Auctions, Innovations, Discrimination