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Non-deterministic group contest with private information

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*Highlights (for review)

Competing Against a Group in a Tullock Contest with Private Information Highlights

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- A Tullock contest with private information is considered.
- A single contestant competes again a group of two. Contestants know their type and only their type. No information is exchange neither within nor across groups.
- Only cutoff strategies can be played in equilibrium, which helps convert the Bayesian game into a normal-form game.
- A Nash equilibrium always exist.
- If the upper bound of the types is sufficiently large, all contestants exert strictly positive expected effort.
- Free-riding exists in the large group for large families of cumulative distribution functions.
- Neither Olson's paradox nor Esteban and Rey's *Common Wisdom* hold in general.