

Nash Equilibrium with Uncertainty: Uncertainty Makes Irrationality

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Abstract We introduce a notion of Nash equilibrium with uncertainty. This is an action profile such that each action of a player is a best response to other players' action profile with her uncertainty that is evaluated by an discreet expected uncertain utility, which is defined as in Jaffray (1989), and Gul and Pesendorfer (2010). The expected uncertain utility equals expected utility with respect to a belief with irrationality, which is defined from uncertainty perception and uncertainty attitude at the strategy profile. We apply this notion to Chicken Game that is conflict and coordination games, and analyze some experimental results.