MARKET GAMES WITH LOCAL KNOWLEDGE

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We present a cournotian oligopolistic model with omogenous goods and constant marginal costs where the players haven't a global knoweledge of the demand market function; while, we consider firms with local knoweledge that try to "learn" the real demand curve. In each period of time firms observe the market price, the amount of good sold at that price and finaly the sensivity of the demand curve to price variation through small market variation. This local knoweledge of the demand curve is enough for the representation of a perceived demand curve through the linear approsimation. Then, on the basis of the linear representation a new optimal quantity production is decided, and so on.
We show that the Nash equilibria of game with global knowledge are also Nash equilibria of the corresponding game with incomplete information. Then is studied the relation between the two kind of game from the point of view of the in/stability of the Nash equilibria. And finaly, we show the relevance of the number of players and of demand elasticity on in/stability of equilibria and on the emergence of chaotic attractors via bifurcations.