Location game on the plane

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We analyze the Hotelling's location game on the plane.

There are two players (firms) located in different points inside the circle and the customers are distributed with some density in it. The solution of two game-theoretic problems is derived. The first problem is to find the equilibrium prices for the goods, and the second problem is to find the equilibrium allocation of the players inside the circle. The equilibrium in location game is constructed for uniform and non-uniform case.

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