

Urban Economics and Analysis

P. v. Mouche

Assignment B

This assignment concerns the discrete Hotelling game. See Slides B.

Download the Netlogo program `uec.nlogo` (see webpage or brightspace). This program has been developed by Your teacher and Dr. G. Hengeveld.

1. This game allows for various interpretations, for example the location/vendor/consumer interpretation. So this concerns a location model. Describe as precise as possible such an interpretation. In particular what for neoclassical assumptions are made? (May be have a look to discussions of this model in the literature.)
2. Compare this location model with the location model in Chapter 1 in the Text Book of Brueckner.
3. Using the Netlogo program, find out how existence of a Nash equilibrium depends on the number of vendors (2-10) and the number of consumers (i.e. vertices) (2-10).

Only use the following buttons: number-of-vendors, x-dimension (for number of consumers), dimensionise-world (for better fitting to the screen), setup, go (for finding an equilibrium), emergency break! (for stopping if there is no equilibrium). Do not use the w button; $w = 1$ should hold. Also do not use the $y - dimension$ button; $y - dimension = 1$ should hold.

Please handle in, by email to pierre.vanmouche@wur.nl, before June 20.