

Diffusion under Limited Production Factors: the Case of Pollution in Soil

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joint work with Alexandre Cornet, Université Paris 1.

Abstract

We study an agricultural production model using spatial growth model framework. Each location needs fertile soil to produce but the production activity locally pollutes and transforms fertile soil into polluted soil that is non-usable for production. The economy can either use its production for consumption or for depolluting soil that has been affected by the production process. The optimal path for consumption is provided as well as soil fertility distribution along the optimal consumption path that maximizes welfare. Under specific assumptions on the model's parameters, the detrended fertile soil distribution converges and its mean value is conserved throughout the optimal consumption path. One of the main novelties of this paper, is that we take into consideration the fact that land is bounded. At one point in time, fertile land may achieve its maximum at a given location. We describe how the frontier between the fertile region and the partially polluted region evolves with time.

Carmen Camacho is a Senior Researcher at the French National Center for Scientific Research at Paris School of Economics. She studies Economic Growth and long-term decision making from different perspectives, which range from climate change to strategic behaviour.

Wednesday, 29 Jan. 2019

1:00 - 2:00 pm

Location

6, rue Richard
Coudenhove-Kalergi
L-1359 Luxembourg
Building JFK
Room Nancy-Metz

Language

English

Registration

- Free seminar
- Registration to crea@uni.lu
(please specify full name and institution)
- Lunch is planned for registered participants

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