ENVIRONMENTAL AND RESOURCE ECONOMICS

Reading List for "Traeger Part" of the Lecture

Books on Reserve


1. Dynamic Optimization and Stock Pollutants: This section is an introduction to optimal control theory (or Pontryagin's maximum principle). We will apply the theory to a simple stock pollutant problem.

*Lecture Notes


2. Nonrenewable Resources: This section treats socially optimal resource extraction as well as extraction under different market structures. It briefly discusses the green paradox.


### 3. Uncertainty, Learning, and Option Value:

This section analyzes how uncertainty and learning affect optimal extraction or emissions in a simple two period framework.

*Lecture Notes*


4. Integrated Assessment of Climate Change: This section discusses models of economic growth that integrate climate change. Following a brief discussion of climate change per se, we discuss Nordhaus’ open source integrated assessment model DICE.


Online Sources on Different Integrated Assessment Models:
FUND: http://www.mi.uni-hamburg.de/FUND.5679.0.html
WITCH: http://www.witchmodel.org/pag/model.html
Model survey: http://www.metasd.com/ModelSurvey.xml


5. **Social Discounting and Distribution**: The section introduces to the debate on the 'right' social discount rate in the context of climate change evaluation. It thereby relates to questions of sustainability, intergenerational justice, and evaluation under uncertainty.

* Lecture Notes


The second part of the lecture held by Peter Berck will cover

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More details and articles on this second part of the lecture can be found by starting from afs.berkeley.edu/~pberck