

Hyperbolic Discounting in Environmental and Resource Problems

Models with decreasing discount rates – hyperbolic discounting – provide an alternative to exponential discounting. This lecture motivates the use of hyperbolic discounting and explains how to obtain Markov Perfect Equilibria (MPE) for these models. The methods are illustrated using environmental and resource problems.

URLs for papers discussed in lecture

Karp 2004 (forthcoming, Journal of Public Econ)
<http://are.berkeley.edu/%7Ekarp/globalwarmhyperbolic.pdf>

Karp (unpublished)
<http://are.berkeley.edu/%7Ekarp/non-constant.pdf>

Frederick et al JEL 2002
<http://juno.ingentaselect.com/v1=5085957/cl=49/nw=1/fm=docpdf/rpsv/catchword/aea/00220515/v40n2/s1/p351>

Li and Lofgren, Jeem 2000
http://www.sciencedirect.com/science?_ob=MIimg&_imagekey=B6WJ6-45FCB6B-3-1&_cdi=6870&_orig=browse&_coverDate=11%2F30%2F2000&_sk=999599996&view=c&wchp=dGLbVzb-zSkWz&_acct=C000000152&_version=1&_userid=4420&md5=ff9b8ac978ab7bf6e53ff5f8fe4b4c8a&ie=f.pdf

Gollier, JET 2002
http://www.sciencedirect.com/science?_ob=MIimg&_imagekey=B6WJ3-47K0WB5-F-1&_cdi=6867&_orig=search&_coverDate=12%2F31%2F2002&_sk=998929997&view=c&wchp=dGLbVtb-zSkWz&_acct=C000000152&_version=1&_userid=4420&md5=2f22fe937e5f08ce63a77cef8194c4ce&ie=f.pdf

Papers discussed, no URL available (see Karp, Hyperbolic Discounting and Global Warming for full cite;

Harris and Laibson “Dynamic Choices of Hyperbolic Consumers” *Econometrica* 2001

Chichilinsky, “An Axiomatic Approach to Sustainable Development, Social Choice and Welfare, 1996

Weitzman, “Gamma Discounting” *AER* 2001

Rubinstein, “Economics and Psychology?” *IER* 2003