



INSTITUT FÜR HÖHERE STUDIEN
INSTITUTE FOR ADVANCED STUDIES
Vienna

ECONOMETRICS RESEARCH SEMINAR

October 27, 2011, 9 am

**Institute for Advanced Studies
1060 Vienna, Stumpergasse 56
HS II (lecture room II)**

Please note that the seminar will start at 9 am sharp!

Jerry Hausman

MIT

A Poisson Mixture Model of Discrete Choice

In this paper we introduce a new Poisson mixture model for count panel data where the underlying Poisson process intensity is determined endogenously by consumer latent utility maximization over a set of choice alternatives. This formulation accommodates the choice and count in a single random utility framework with desirable theoretical properties. Individual heterogeneity is introduced through a random coefficient scheme with a flexible semiparametric distribution. We deal with the analytical intractability of the resulting mixture by recasting the model as an embedding of infinite sequences of scaled moments of the mixing distribution, and newly derive their cumulant representations along with bounds on their rate of numerical convergence. We further develop an efficient recursive algorithm for fast evaluation of the model likelihood within a Bayesian Gibbs sampling scheme. We apply our model to a recent household panel of supermarket visit counts. We estimate the nonparametric density of three key variables of interest – price, driving distance, and their interaction – while controlling for a range of consumer demographic characteristics. We use this econometric framework to assess the opportunity cost of time and analyze the interaction between store choice, trip frequency, search intensity, and household and store characteristics. We also conduct a counterfactual welfare experiment and compute the compensating variation for a 10% to 30% increase in Walmart prices.

with Martin Burda (University of Toronto) and Matthew Harding (Stanford University)

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NOTE: Participation of advanced students in this seminar is highly recommended.



ECONOMETRICS RESEARCH SEMINAR

Manfred Deistler (University of Technology Vienna and IHS), **Robert Kunst** (IHS),
Benedikt Pötscher (University of Vienna and IHS), **Leopold Sögner** (IHS)

Venue: Institute for Advanced Studies, 1060 Vienna, Stumpergasse 56

Schedule Fall/Winter 2011/2012

UNIT	DATE	ROOM	SEMINAR
1	Thu, Oct 27 9:00 am	HS II	Jerry Hausman , MIT <i>"A Poisson Mixture Model of Discrete Choice"</i>
2	Thu, Nov 03 9:00 am	HS II	Carlos Velasco , Universidad Carlos III de Madrid <i>"Tests for m-dependence Based on Sample Splitting Methods"</i>
3	Thu, Nov 17 9:00 am	HS II	Adam Rosen , University College London
4	Thu, Nov 24 9:00 am	HS II	Genaro Sucarrat , BI Norwegian Business School
5	Thu, Dec 01 9:00 am	HS II	Bernd Funovits , Vienna Graduate School of Economics
6	Thu, Dec 15 9:00 am	HS II	Ulli Schneider , TU Vienna
7	Thu, Jan 12 9:00 am	HS II	Sabyasachi Das , Vienna Graduate School of Economics
8	Thu, Jan 19 9:00 am	SZ VI	Siegfried Hörmann , Université Libre de Bruxelles
9	Thu, Jan 26 9:00 am	HS II	Martin Wagner , Institute for Advanced Studies
10	Thu, Mar 15 9:00 am	HS II	Steven Durlauf , University of Wisconsin-Madison
11	Thu, Mar 22 9:00 am	HS II	Jan G. De Gooijer , Universiteit van Amsterdam
12	Thu, Apr 19 9:00 am	HS II	Michel Dacorogna , SCOR
13	Thu, Jun 21 9:00 am	HS II	Maximilian Kasy , UCLA

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