



Bar-Ilan University
Department of Economics



Research Institute for Econometrics
מכון מחקר לאקונומטריקה

Research Workshop of the Israel Science Foundation and the Research Institute for Econometrics at Bar-Ilan University

Likelihood and Simplicity

סדנת מחקר של הקרן הלאומית למדע ומכוון מחקר לאקונומטריקה באוניברסיטת בר-אילן

נראות ופשטות

The workshop deals with the broad question of theory or model selection: how do, and how should we select among theories? How should one strike the balance between the degree to which theories fit the data, or are corroborated by evidence, and their simplicity, generality, and other properties? This question is at the heart of research in econometrics, statistics, machine learning, decision theory, as well as philosophy of science. The goal of the workshop is to bring together some top researchers from diverse fields to present their approaches to the problem, as well as report on recent advances.

**The workshop will take place at Weisfeld Hall, Feldman Building (#301), Bar-Ilan University
January 7-9, 2014**

It is funded by the Israel Science Foundation and the Research Institute for Econometrics

Program Committee

Itzhak Gilboa, The Eitan Berglas School of Economics, Tel Aviv University

Offer Lieberman, Department of Economics, Bar-Ilan University

Yishay Mansour, School of Computer Science, Tel Aviv University

To register, please email Hanna Chapnik at Hannah.Chapnik@mail.biu.ac.il. Places are limited.



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Day 1: Tuesday, January 7, 2014

9:15 – 9:45 Coffee

9:45 – 10:00 Opening: **Daniel Hershkowitz**, Bar-Ilan University President

Session 1: Chairperson – Itzhak Gilboa

10:00 – 10:30 **Felix Abramovich**: *Model Selection in High-Dimensional Regression and Related Issues*

10:30 – 11:00 **Nabil Al-Najjar**: *This Time is Different*

11:00 – 11:30 Coffee Break

11:30 – 12:00 **Antoine Billot**: *The Difference between States and Observations in a Decision-Theoretic Setting*

12:00 – 12:30 **Yoav Benjamini**: *Selective Inference: An Essential Ingredient in the Current Scientific Process*

12:30 – 14:00 Lunch

Session 2: Chairperson – Gabrielle Gayer

14:00 – 14:30 **Larry Brown**: *Linear Regression Analysis in Non-linear Populations*

14:30 – 15:00 **Gabrielle Gayer**: *Analogy and Theories: The Role of Simplicity and the Emergence of Norms*

15:00 – 15:30 Coffee Break

15:30 – 16:00 **Patrik Guggenberger**: *A New Conditional Quasi-Likelihood Ratio Test for Moment Condition Models with Possible Weak Identification*

16:00 – 16:30 **Joe Halpern**: *Language-Based Games*



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Day 2: Wednesday, January 8, 2014

9:30 – 10:00 Coffee

Session 3: Chairperson – Yishay Mansour

10:00 – 10:30 **Yuichi Kitamura**: *Nonparametric Analysis of Random Utility Models: Prediction*

10:30 – 11:00 **Ehud Lehrer**: *Marketization: Choosing a Model in Order to Obtain a Desired Result*

11:00 – 11:30 Coffee Break

11:30 – 12:00 **Offer Lieberman**: *Rules, Analogies and a Similarity Based Model for Ordered Categorical Data*

12:00 – 12:30 **Oliver Linton**: *A Semiparametric Model for Heterogeneous Panel Data with Fixed Effects*

12:30 – 14:00 Lunch

Session 4: Chairperson – Shmuel Nitzan

14:00 – 14:30 **Charles Manski**: *Evaluating Statistical Treatment Rules by Mean and Quantile Performance*

14:30 – 15:00 **Shlomo Yitzhaki**: *Gini's Mean Difference Offers a Response to Leamer's Critique*

15:00 – 15:30 Coffee Break

15:30 – 16:00 **Massimo Marinacci**: *Selfconfirming Biases*

16:00 – 16:30 **Shmuel Nitzan**: *Do Consistent Aggregation Theories Guarantee the Truth?*



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Day 3: Thursday, January 9, 2014

10:30 – 11:00 Coffee

Session 5: Chairperson – Offer Lieberman

11:00 – 11:30 **Yaacov Ritov**: *Can We Have Bayesian Analysis on Complex Models?*

11:30 – 12:00 **Larry Samuelson**: *Dynamics of Inductive Inference in a Unified Model*

12:00 – 12:30 **Eran Shmaya**: *Many Inspections are Manipulable*

12:30 – 14:00 Lunch

Session 6: Chairperson – Joseph Deutsch

14:00 – 14:30 **Eilon Solan**: *On the Optimal Amount of Experimentation in Sequential Decision Problems*

14:30 – 15:00 **Aris Spanos**: *Revisiting Akaike-type Model Selection Procedures: Goodness-of-fit vs. Statistical Adequacy*

15:00 – 15:30 Coffee Break

15:30 – 16:00 **Naftali Tishby**: *Regularizing Control and Learning by Limiting Information Flow*

16:00 – 16:30 **David Wolpert**: *Value of Information*

16:30 – 17:00 **Yishay Mansour**: *Learning Multiple Tasks using Shared Hypotheses*



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List of Participants

Felix Abramovich, Department of Statistics and Operations Research, Tel Aviv University

Nabil Al-Najjar, Kellogg School of Management, Northwestern University

Antoine Billot, Laboratoire d'économie moderne, Université Panthéon-Assas

Yoav Benjamini, Department of Statistics and Operations Research, Tel Aviv University

Larry Brown, Wharton Statistics Department, University of Pennsylvania

Simone Cerreia-Vioglio, Department of Decision Sciences, Università Bocconi

Gabrielle Gayer, Department of Economics, Bar-Ilan University

Itzhak Gilboa, The Eitan Berglas School of Economics, Tel Aviv University

Patrik Guggenberger, Department of Economics, Penn State

Joseph Halpern, Computer Science Department, Cornell University

Yuichi Kitamura, Cowles Foundation for Research in Economics, Yale University

Ehud Lehrer, Department of Statistics and Operations Research, Tel Aviv University

Offer Lieberman, Department of Economics, Bar-Ilan University

Oliver Linton, Faculty of Economics, University of Cambridge

Fabio Angelo Maccheroni, Department of Decision Sciences, Università Bocconi



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List of Participants (Continued)

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Shmuel Nitzan, Department of Economics, Bar-Ilan University

Yaacov Ritov, Department of Statistics, The Hebrew University of Jerusalem

Larry Samuelson, Cowles Foundation for Research in Economics, Yale University

David Schmeidler, IDC Herzliya

Eran Shmaya, Department of Statistics and Operations Research, Tel Aviv University

Eilon Solan, Department of Statistics and Operations Research, Tel Aviv University

Aris Spanos, Department of Economics, Virginia Tech

Naftali Tishby, School of Engineering and Computer Science, The Hebrew University of Jerusalem

David Wolpert, Santa Fe Institute

Shlomo Yitzhaki, Department of Economics, The Hebrew University of Jerusalem