

WORKSHOP - ASE 100



*Nonparametric Frontier Analysis:
Recent Theoretical Developments and
Applications*

PN-II-ID-PCE-2011-3-0893

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Assessing the impact of external, environmental factors on the efficiency of economic producers: statistical modeling, software, applications

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- Faculty of Cybernetics, Statistics and Economic Informatics
- Centrul de Cercetări Matematice Avansate, Fundamentale și Aplicative (Center of Advanced Fundamental and Applied Mathematical Research)

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- The project extends the most recent results on nonparametric frontier models to the case of nonparametric conditional frontiers which allow including external, environmental variables in the model.
- In this conditional setting we analyze theoretical and empirical properties of the nonparametric estimators of conditional efficiency providing a full statistical toolbox for estimation and testing.
- The project combines forefront theoretical results from nonparametric econometrics with computer intensive statistical methods and optimization techniques. These will jointly provide a fundamental efficiency toolkit, useful for a wide variety of economic applications.

INVITED SPEAKERS:

- **Léopold SIMAR**, Emeritus Professor of Institute of Statistics, Biostatistics and Actuarial Sciences, Université Catholique de Louvain, Belgium - *Methodological Advances and Perspectives in Nonparametric Frontier Analysis*
- **Cinzia DARAIO**, Associate Professor at Department of Computer, Control and Management Engineering Antonio Ruberti, Sapienza University of Rome, Italy - *Scale and scope using directional distances with an application on European universities data*