VORträge zum Operations Research

Kolloquium des Instituts für Operations Research

Zeit: Donnerstag, 13. Februar 2014, 17:30 Uhr

Ort: Raum 111, Gebäude 20.13

Es spricht: Dr. Vladimir Shikhman, Université Catholique de Louvain, Belgien

Zum Thema: **Algorithmic models of market equilibrium**

Abstract: In this talk we suggest a new framework for constructing mathematical models of market activity. Contrary to the majority of the classical economical models (e.g. Arrow-Debreu, Walras, etc.), we get a characterization of general equilibrium of the market as a saddle point in a convex-concave game. This feature significantly simplifies the proof of existence theorems and construction of the adjustment processes both for producers and consumers. Moreover, we argue that the unique equilibrium prices can be characterized as a unique limiting point of some simple price dynamics. In our model, the equilibrium prices have natural explanation: they minimize the total excessive revenue of the markets participants. Due to convexity, all our adjustment processes have unambiguous behavioral and algorithmic interpretation. From the technical point of view, the most unusual feature of our approach is the absence of the budget constraint in its classical form.
This is joint work with Yurii Nesterov.

Die Vorträge zum Operations Research wenden sich an alle Interessierten!

Ab 17:00 Uhr ist am Lehrstuhl für Operations Research (Gebäude 20.13, Raum 104) Gelegenheit zu einem Gespräch mit dem Referenten bei einer Tasse Kaffee gegeben.

Bei Rückfragen wenden Sie sich bitte an:

Prof. Dr. Oliver Stein, Lehrstuhl für Kontinuierliche Optimierung am IOR.