# Bruno Strulovici

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Expected 2005	Ph.D.	Stanford University. Stanford, CA. Department of Management Science and Engineering. Concentration in Economics and Finance.
		Dissertation Topic: Essays in Mathematical Economics and Finance. Supervisor: Thomas A. Weber
2001	Engineer Degree	Ecole Nationale des Ponts et Chaussées, Champs-sur-Marne, France. Collège Economie, Gestion, Finance.
1998	Engineer Degree	Ecole Polytechnique, Palaiseau, France. Majors: Applied Mathematics and Economics.
1995	Bachelor Degree	Lycée Louis-le-Grand, Paris, France. Mathematics.

# **Honors and Awards**

2004	Jerome Kaseberg Doolan Fellowship.
2004	Course Assistant Award of the Department of Management Science and Engineering, Stanford University.
2001	Doctoral Fellowship, Department of Management Science and Engineering, Stanford University.
1998	Member of the Corps National des Ponts et Chaussées, France.
1998	Graduated with rank 28 <sup>th</sup> out of 415 from the Ecole Polytechnique, France.
1993	Ranked 4 <sup>th</sup> nationwide at the French Mathematics and Logic Kangaroo Competition.

# Professional Experience

Summer 2004	Lehman Brothers New York, NY	Summer Associate. Credit Modeling Group Development and implementation of a model of capital arbitrage strategy.
1999-2000	Elf Atochem Japan Tokyo, Japan	Project Manager. Design of a Database for Sales Force Management. Training of Sales Managers.
Fall 1998	French Ministry of Construction Normandy, France	Restructuration of three territorial divisions and two maritime divisions.
Summer 1998	Paribas Capital Markets Tokyo, Japan	Summer Intern. Pricing of Bermudan swaptions with a fixed point algorithm.

# **Teaching Experience**

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2004	Lecturer. Management Science & Engineering Mathematics Workshop for incoming Ph.D. and M.S. Students.			
	Teaching Assistant for the follo	wing courses:		
2004	Advanced Economic Analysis. Engineering Economics.	Doctoral course. Undergraduate course.		
2003	Investment Science. Financial Engineering Dynamic Programming	Undergraduate course. Doctoral course. Doctoral course.		
2002	Engineering Economics Dynamic Programming	Undergraduate course Master course.		
2001	Supply Chain Optimization Engineering Economics	Doctoral course. Undergraduate course.		

### **Research Interests**

- Financial Economics: optimal security design, market microstructure, transaction costs and market dynamics
- Microeconomic Theory: monotone comparative statics, multi-principal multi-agent games, nonlinear pricing.
- Quantitative Finance: strategy-based analysis of financial markets, credit modeling, optimal-exercise policies.

### **Papers**

"Monotone Comparative Statics: A Geometric Approach." (submitted to *Econometrica*) With Thomas Weber.

"Performance-Sensitive Debt" (RR, *Journal of Financial Economics*). With Gustavo Manso and Alexei Tchistyi.

"Constructing Efficient Equilibria in Games Played Through Agents." (submitted to *Econometrica*). With Thomas Weber.

"Prediction Accuracy and Imitating Behavior in Artificial Markets with Endogenous Pricing," Computational Intelligence for Economics and Finance, 2003, *JCIS Conference Proceedings*. With Kushagra Saxena.

"Agent-Based Simulation of Price and Wealth Dynamics with Direct Information Exchange among Investors." Computational Intelligence for Economics and Finance, 2003, *JCIS Conference Proceedings*. With Anthony Hui.

"Price Formation Rules in an Artificial Stock Market with Heterogeneous, Risk-Averse Investors." Computational Intelligence for Economics and Finance, 2003, *JCIS Conference Proceedings*. With Stephanie Leung.

## <u>Presentations</u>

#### Conference presentations

- 2004 Institute for Operations Research and the Management Sciences (INFORMS) Denver, Colorado, October 24-26.
- Third International Workshop on Computational Intelligence in Economics and Finance (CIEF 2003), Cary, North Carolina, September 26-30.

#### Invited presentations

- 2004 Tokyo University, Department of Economics, Tokyo Japan, December 27.
- 2003 Hitotsubashi University, Graduate School of International Corporate Strategy, Tokyo, Japan, September, 6.
- 2003 Tsukuba University, Graduate School of Systems Management, Tokyo, Japan, September, 8.

## Work in progress

#### **Economics**

"Multidimensional Screening: A Direct Approach."

"Monotone Comparative Statics with a Budget Constraint."

"Spence-Mirrlees and Single-Crossing Properties: Generalization and Application to Partially Specified Problems."

#### **Finance**

"Financial Markets with Sophistication Costs."

"A Strategy-Based Analysis of Financial Markets."

"The Impact of Transaction Tax on Market Volatility: A Quantitative Model."

### Professional affiliations

American Economic Association (AEA)
Econometric Society (ES)
Institute for Operations Research and the Management Sciences (INFORMS)
Society for Industrial and Applied Mathematics (SIAM)

# Editorial services (Refereeing)

Econometrica, Management Science.

## References

Professor Thomas Weber (Advisor), Department of Management Science and Engineering.

Email: webert@stanford.edu

Professor Darrell Duffie, Graduate School of Business, Finance.

Email: <u>duffie@stanford.edu</u>

Professor Paul Milgrom, Department of Economics.

Email: milgrom@stanford.edu

Professor Paté-Cornell, Department of Management Science and Engineering.

Email: mep@stanford.edu