

GUY ARIE

2001 Sheridan Rd.
Leverone Hall 626
Evanston, IL 60208

Phone: 312-283-4501
E-mail: g-arie@northwestern.edu
Web: www.kellogg.northwestern.edu/faculty/arie

RESEARCH AND TEACHING FIELDS

Research: Microeconomic Theory, Organizational Economics, Business Strategy, Industrial Organization, Computational Economics.
Teaching: As research.

DOCTORAL STUDIES

Ph.D., Managerial Economics, Kellogg, Northwestern University, Evanston, Illinois
Dissertation: Dynamic Moral Hazard and Organizations
Committee Chairpersons: Professors Jeroen Swinkels and Michael D. Whinston
Date of Completion: July 2012 (expected)

PREDOCTORAL STUDIES

B.Sc.: Computer Science and Philosophy, Tel Aviv University, Israel, 2001. Magna Cum Laude
M.Sc.: Managerial Decisions and OR, Tel Aviv University, Israel, 2006. Magna Cum Laude

FELLOWSHIPS AND AWARDS

Dissertation Year Fellowship – Northwestern University Transportation Center
Kellogg Graduate Fellowship, 2006-Present
Tel Aviv U. Management Department Scholarship for Academic Excellence, 2004
Numerous undergraduate merit based awards, 1999-2001

TEACHING EXPERIENCE

Teaching Assistant, Northwestern University, 2009-2011
Economics for MBA. Taught by Professor Mark Satterthwaite
Advanced Business Strategy. Taught by Professor Thomas Hubbard.
Teaching Assistant, Tel Aviv University, 2003 and 2005
Static Optimization (graduate course)
Econometrics (graduate course)

RESEARCH EXPERIENCE

Research Assistant to Professor Mark Satterthwaite, 2007 – 2010
Research Assistant to Professor Marco Ottaviani, 2009-2010
Research Assistant to Professors Shane Greenstein, Ben Jones and Kristina McElheran (data analysis in various projects)

PROFESSIONAL EXPERIENCE

NBER Entrepreneurship Boot-Camp
Institute for Computational Economics (U-Chicago) summer school
Conference presentations – SED, IOOC, ASSA
Referee – Review of Economic Studies, Journal of Economics & Management Strategy, IEEE-ACM

Guy Arie, Page 2

JOB MARKET PAPER - Dynamic Costs and Moral Hazard.

The cost of effort often increases in past effort. In sales, for example, the last sales of a quarter are harder to make than the first ones -- the pool of easy customers is depleted. In an agency setting with unobservable effort, increasing marginal cost complicates the optimal contract problem. If the agent shirks today, his cost tomorrow will be lower than the principal believes. The optimal contract is characterized as a dynamic quota. The main features of the optimal contract are consistent with the popular yet thus far puzzling use of nonlinear incentives for sales agents. Historically, the main obstacle for solving dynamic moral hazard problems with private information was that the one-shot-deviation principle cannot be applied. I develop a duality based representation for dynamic moral hazard problems and use it to obtain a stronger characterization of the optimal contract. In particular, the dynamic dual analysis shows that the optimal contract does satisfy a one-shot-deviation condition.

OTHER PAPERS AND WORK IN PROGRESS

Do Firms Compensate Switching Consumers?, with Paul Grieco. (under review)
Multi-Market Contact in the Airline Industry: Theory and Evidence, with Sarit Markovich and Mauricio Varela (in progress)
Dynamic Costs and the Design of Organizations (in progress)
Dynamic Costs and Productivity: Evidence from Software Testing (in progress)

NON-ACADEMIC EXPERIENCE

Systems Engineer and Technical Lead, Comverse Inc. (Israel), 2005-2006
Systems Engineer, Team Manager and Technical Lead, Israel Aerospace Industries, 2002-2005
Software Developer, IAI and Gilat Networks, 1998-2001
Chairman, Mahapach - an Israeli community organizing NGO, 2000-2002

SOFTWARE EXPERIENCE

Stata, SAS, Matlab, Mathematica, AMPL, C/C++, Java, Linux shell.

REFERENCES

Professor Jeroen Swinkels (co-chair)
Management and Strategy Department
Kellogg, Northwestern University
Evanston, IL 60208
Phone: 847-497-0960
j-swinkels@kellogg.northwestern.edu

Professor Michael D. Whinston (co-chair)
Department of Economics
Northwestern University
Evanston, IL 60208
Phone: 847-491-8260
mwhinston@northwestern.edu

Professor William Rogerson
Department of Economics
Northwestern University
Evanston, IL 60208
Phone: 847-491-8484
wrogerson@northwestern.edu

Professor Mark Satterthwaite
Management and Strategy Department
Kellogg, Northwestern University
Evanston, IL 60208
Phone: 847-491-5482
m-satterthwaite@northwestern.edu