ORSIS Conference June 2010

Wednesday, June 2

8:30- 9:30 Registration
9:30- 9:45 Greetings (اورלה יפה נוג’)
9:45-10:35 Naor Lecture : Dick van Hertog
  
  Two examples of Optimization at Work

10:35-11:10 Life Achievement prize : Benjamin Avi-Itzhak
11:10-11:30 Break
11:30-13:00 Parallel Sessions W1

(W1A) Reinforcement Learning (اورלה יפה נוג’)
  Chair: Nahum Shimkin
  
  Online learning in Competitive Dynamic Environments
  Shie Mannor

  Adaptive Bases in Reinforcement Learning
  Dotan Di Castro* and Shie Mannor

  Adaptive-Resolution Reinforcement Learning
  Andrey Bernstein* and Nahum Shimkin

(W1B) Continuous Optimization 1 (اورלה יפה נוג’)
  Chair: Marc Teboulle
  
  A Convex Optimization Approach for a Class of Nonconvex Quadratic Estimation Problems
  Marc Teboulle* and Amir Beck

  A Moving Balls Approximation Method for a Class of Smooth constrained Minimization Problems
  Ron Shefi*, Alfred Auslender and Marc Teboulle

  Isotonic Recursive Partitioning
  Ronny Luss*, Saharon Rosset and Moni Shahar
(W1C) Stochastic Models 1 (אולמות בוריש)

Chair: Iddo Eliazar

A Model for Network Evolution
Gail Gilboa-Freedman* and Refael Hassin

A Sex Talk: The matchmaking paradox
Iddo Eliazar* and Igor Sokolov

Waiting Time in the Sequential Occupancy Problem
Rachel Ravid* and Tamar Gadrich

13:00-13:55 Lunch

13:55-14:15 ORSIS General Assembly

14:15-15:45 Parallel Sessions W2

(W2A) Simulation and Stochastic Optimization (אולמות סימולציה ו邓小ית אקראית)

Chair: Reuven Rubinstein

Particle Filters, Hidden Markov Models and the Stochastic Enumeration Method for Counting and Combinatorial Optimization
Reuven Rubinstein

Randomized Algorithms with Splitting
Radislav Vaisman* and Andrey Dolgin

Partially Observable Markov Decision Processes for Intruder Recognition
Tal Ben-Zvi* and Jeffrey Nickerson

(W2B) Game Theory 1 (אולמות משחק)

Chair: Moshe Haviv

Efficiency Levels in Sequential Auctions with Dynamic Arrivals
Ella Segev* and Ron Lavi

Strategy Proof Risk Assessment
Yaniv Mordecai* and Yigal Gerchak

Auctions with a random number of bidders
Moshe Haviv* and Igal milchtaich

(W2C) Scheduling 1 (אולמות ירידה)

Chair: Illana Bendavid

A Fully Polynomial Algorithm for Cyclic Scheduling Problems with Interval Data
Eugene Levner* and Vladimir Kats

Modeling Yield vs. Flow-Time in a Production System
Israel Tirkel* and Gad Rabinowitz

A Folding Horizon Approach for Setting Gates of Activities in the Stochastic Project Scheduling Problem
Illana Bendavid* and Boaz Golany
15:45-16:00 **Break**

16:00-17:30 **Parallel Sessions W3**

(W3A) **Asymptotic Methods in Queues** (אלפיים מתقيدים)

Chair: Rami Atar

**On the non-degenerate slowdown diffusion regime**
Rami Atar*, Itay Gurvich and Nir Solomon

**Control of Fork-Join Networks in Heavy-Traffic**
Asaf Zviran* Rami Atar and Avishai Mandelbaum

**Pricing for Social Utility Optimization in Cloud Computing Centers**
Nahum Shimkin*, Ishai Menache and Asuman Ozdaglar

(W3B) **Approximation Algorithms** (אלפיים במשתנה)

Chair: Danny Segev

**An Extension of the Nemhauser and Trotter Theorem to Generalized Vertex Cover with applications**
Dror Rawitz*, Reuven Bar-Yehuda and Danny Hermelin

**Approximating Functions in Logarithmic Space and Time: A ```Plug & Play'' Approach**
Nir Halman* and James Orlin

**Price of Adaptivity in Stochastic Knapsack Problem with Dependence on State of Nature Assumption**
Aleksander Vainer* and Asaf Levin

(W3C) **Scheduling 2** (אולפים ברוח)

Chair: Gur Mosheiov

**A Bi-criteria Approach to Scheduling a Single Machine with Rejection and Positional Penalties**
Nufar Gasper*, Liron Yedidsion and Dvir Shabtay

**Equal Allocation Policy in Openshop batch Scheduling**
Baruch Mor*, Gur Mosheiov and Daniel Oron

**Scheduling a Deteriorating Maintenance Activity on a Single Machine**
Gur Mosheiov* and Jeffrey B. Sidney

(W3D) **Logistics and Transportation** (אולפים אחור)

Chair: Tal Raviv

**Service Oriented Train Timetabling**
Mor Kaspi* and Tal Raviv

**Lateral Transshipments with Fixed Transshipment Costs**
Reut Bonshtain* and Michal Tzur

**The Uncapacitated Dial-A-Ride Problem on a Tree**
Rona Pfeffer* and Shoshana Anily

17:45-22:00 **Social event (Tour & Dinner)**
Thursday, June 3

9:00-10:30 Parallel Sessions T1

(T1A) Constraint Satisfaction Problems (瑙땀.throw)

Chair: Odellia Boni

**Constraint Satisfaction Problems and Operations Research**
Michael Veksler

**Constraint-Based Random Stimuli Generation for Hardware Verification**
Michal Rimon*, Yehuda Naveh, Itai Jaeger, Yoav Katz, Michael Vinov, Eitan Marcu and Gil Shurek

**Constraint Programming for Cloud Computing**
Odellia Boni

(T1B) OR Applications 1 (瑙AndPassword: F)

Chair: Zilla Sinuani-Stern

**Quadratic Model for Budget Allocation**
Zilla Sinuani-Stern

**Precision agriculture management using segmentation of massive hyper-spectral satellite image**
Z. Mhabary*, S.Cohen Y. Cohen, V. Alchanatis and O. Levi

**Evaluating Israeli Police stations’ performance using Data Envelopment Analysis (DEA)**
Doron Alper* and Zilla Sinuani-Stern (**ORSIS Prize Winner**) 

(T1C) Allocation problems in competitive environments (瑙AndPassword: F)

Chair: Boaz Golany

**Existence and computing a unique Nash equilibrium in a stochastic competitive R&D race where winner takes all**
Inbal Mund*, Pelin Gulsah Canbolat, Boaz Golany and Uriel G. Rothblum

**A stochastic competitive R&D race where "\winner takes all"**
Pelin Canbolat*, Boaz Golany, Inbal Mund and Uriel G. Rothblum

**Characterization and computation of Nash equilibria in defensive resource allocation games**
Noam Goldberg*, Boaz Golany and Uriel G. Rothblum

**Determining all Nash Equilibria in a (Bi-Linear) Inspector Game**
Yael Deutsch*, Uriel G. Rothblum and Boaz Golany

10:30-10:50 **Break**

10:50-11:35 **Prizes announcement and Plenary 2** : Mordecai Avriel

**Financial Engineering at Bank Hapoalim**
11:40-12:40 **Parallel Sessions T2**

**(T2A) Mehraz Prizes winner's**

Chair: Mordecai Henig

**Optimal Influenza Vaccination Policy**
Dan Yamin* and Arieh Gavious

**A Strongly Polynomial Algorithm for Controlled Queues**
Alexander Zadorojniy*, Guy Even and Adam Shwartz

**(T2B) Decision making**

Chair: Yigal Gerchak

**Does Competition Improve Performance**
Yigal Gerchak* and D. Marc Kilgour

**Simultaneously Learning and Optimizing Prices**
Bert Zwart* and Arnoud den Boer

**(T2C) Stochastic Models**

Chair: Uri Yechiali

**Analysis of a TCP System under Polling-Type Reduction-Signal Procedures**
Omer Czerniak*, Uri Yechiali and Eitan Altman

**Two-Queue Systems where Customers of Each Queue are the Severs of the Other Queue**
Efrat Perel* and Uri Yechiali

12:40-13:55 **Lunch**

13:55-15:25 **Parallel Session T3**

**(T3A) Game Theory**

Chair: Arieh Gavious

**Asymmetric Auctions Reconsidered**
Yitzhaq Minchuk* and Arieh Gavious

**Bargaining over multiple issues: to commit or not to commit?**
Arieh Gavious* and Ella Segev

**Core-stable rings in second price auctions with common values**
Ram Orzach* and Françoise Forges
Chair: Amir Beck

**Facility Location: A Robust Optimization Approach**
Hussein Naseraldin*, Opher Baron and Joseph Milner

A parametric method for constrained minimization problem with application to Image Deblurring Problem
Luba Tetruashvili* Aharon Ben-Tal and Amir Beck

A Fast Proximal Gradient Method for Solving a Class of Nonsmooth Problems with Applications
Amir Beck* and Marc Teboulle

Chair: Segev Wasserkrug

**Service Organization Workforce Optimization using Mixed-Integer Programming and Simulation**
Zohar Feldman*, Segev Wasserkrug, Dagan Gilat

Robust Capacity planning
Michael Masin* and Ira Goldenberg

**Real-Time Workforce Scheduling in Multi-Process Environment**
Sergey Zeltyn*, Mike Marin, Michael Masin, Segev Wasserkrug and Dagan Gilat

15:25-15:40 Break

15:40-17:10 Parallel Session T4

Chair: Refael Hassin

**The Capacitated Spanning Tree Problem**
Nili Beck*, Ester M. Arkin and Refael Hassin

An Improved Heuristic Algorithm for the Set Covering
Tsahi Avrahami*, Amnon Gonen and Eli Shemesh

Probabilistic Testing of non Feasibility of the OS System
Ephraim Korach*, Ron Ben-Yishai, Sagi Hilleli and Michal Stern

Chair: Yoav Kerner

**Queueing In Multilevel Real-Time Systems**
Jozeph Kreimer* and Edward Ianovsky

First come first served matching of multi-type customers and servers, in various queueing systems
Gideon Weiss* and Ivo Adan
The M/G/1+G Queue Revisited
David Perry*, Onno Boxma and Wolfgang Stadje

(T4C) Supply Chain Management
Chair: Michal Rozenblit

Robust optimization of multi-period production planning under uncertainty
Michal Rozenblit*, Aharon Ben-Tal and Boaz Golany.

Models for Evaluating Profitability of Investing in Improvements
Gabi Pinto and Beni Bar Yosef

Staffing and Routing in a Two-call Center System with Transfer Cost: Supply Chain Methodology
Yanir Cohen*, Yale T. Herer and Segev Wasserkrug