



ORSIS 2015: PROGRAM-AT-A GLANCE

Haifa, 10-11 May 2015
Leonardo Hotel – Almog Building

Sunday		
09:00-09:30	Registration	לובי
09:30-09:40	Opening Session	אלמוג
09:40-10:30	S1 Naor Plenary Lecture: Nimrod Megiddo	אלמוג
10:30-10:50	Awards Ceremony	אלמוג
10:50-11:10	Coffee Break	
11:10-12:25	S2 Parallel Sessions: פנינה סוויטה אלמוג אקוומרין	a. Queues and their Applications b. Game Theory 1 c. Supply Chain Management 1 d. Combinatorial Optimization 1
12:25-13:45	Lunch & Orsis General Assembly (13:25)	אקוואמרין
13:45-14:35	S3 Plenary Lecture Yishay Mansour	אלמוג
14:35-15:25	S4 Semi-Plenary Tutorials: פנינה אקוומרין	a. Rami Atar b. Eran Hanany
15:25-15:45	Coffee Break	
15:45-17:25	S5 Parallel Sessions: פנינה אלמוג אקוומרין סוויטה	a. Topics in Continuous Optim. b. Supply Chain Management 2 c. OR in practice d. Health Care Management
17:45-19:45	Evening Program: National Maritime Museum	
19:45-21:15	Evening Program: Dinner, with Guest Lecture	

Monday		
09:00-09:30	Registration	לובי
09:30-11:10	M1 Parallel Sessions: אלמוג פנינה אקוומרין סוויטה	a. Combinatorial Optimization 2 b. Queues and Stochastic Systems 1 c. Game Theory 2 d. Police Applications
11:10-11:30	Coffee Break	
11:30-12:20	M2 Semi-plenary Tutorials: פנינה אקוומרין	a. Assaf Zeevi b. Iddo Eliazar
12:20-13:20	Lunch	
13:20-14:10	M3 Plenary Lecture: אלמוג	Aharon Ben-Tal
14:15-15:55	M4 Parallel Sessions: אלמוג פנינה סוויטה אקוומרין	a. Prize Winners Session b. Scheduling c. Optimization d. Queues and Stochastic Systems 2
15:55-16:10	Coffee Break	
16:10-17:25	M5 Parallel Sessions: אלמוג פנינה אקוומרין	a. Transportation b. Water Management c. Strategic Behavior in Queues
17:25-17:30	Farewell	

מקום הכנס: מלון לאונרדו חיפה, בניין "אלמוג" (הבניין הצפוני, הרחב יותר), רח' דוד אלעזר 10. המלון ממוקם על חוף הים בכניסה הדרומית לחיפה, סמוך לתחנת הרכבת "חוף הכרמל".

תוכנית חברתית: יום א' בערב: נפתח בסיור מודרך במוזיאון הימי הלאומי (בשעות 17:45-19:45, כולל יציאה וחזרה למלון הכנס), ולאחריו ארוחת ערב מלווה בהרצאתו של ד"ר גיק סילברמן בנושא "השלכות סביבתיות של חיפושי גז ונפט בים העמוק באזור המים הכלכליים של מדינת ישראל".

תחבורה: ברכבת- יש לרדת בתחנת "חוף הכרמל", המרחק למלון הוא כקילומטר אחד בהליכה נוחה צפונה לאורך חוף הים. לחילופין, שרות מוניות זמין ביציאה המערבית מהרכבת.

במכונית - יש להיכנס לרחוב דוד אלעזר (כביש פנימי לאורך החוף), הכניסה מצפון דרך צומת דרך הים (מסעדת מקסים) או מדרום דרך צומת מת"ם (מול דרך פרויד). ניתן לחנות בחניון הפנימי של הבניין, הכניסה אליו מצפון לבניין אלמוג.

Supported by



The organizing Committee:

Nahum Shimkin (Chair)
Michal Penn
Gail Gilboa-Friedman

Detailed Program - Sunday, 10.5

09:00-09:30 Registration

09:30-09:40 **S1 Opening Session** אלמוג

09:40-10:30 **Naor Plenary Lecture** אלמוג

Nimrod Megiddo, IBM Almaden

The State-of-the-Art of the Theory of Linear Programming

Chair and Opener: Aharon Ben-Tal

10:30-10:50 **Awards Ceremony** אלמוג

10:50-11:10 Coffee Break

11:10-12:25 **S2 Parallel Sessions:**

S2a Queues and Their Applications Chair: Uri Yechiali פנינה	<u>Amir Elalouf</u> , Yael Perlman, Uri Yechiali	Who Will Receive the Kidney? A Queueing Model for Live Organ Allocation
	<u>Gabi Chanukov</u> , T. Avinadav, T. Chernonog, U. Spiegel, U. Yechiali	Utilization of Server's Idle Time for Greater Efficiency in Queueing Systems
	<u>Nir Perel</u> , Uri Yechiali	An Unlimited Batch-Service Multi-Queue System with Uniform and with Geometric Group-Joining Policies
S2b Game Theory 1 Chair: Eran Hanani סוויטה	<u>Noam Goldberg</u>	Nonzero-sum Nonlinear Network Interdiction
	<u>Gal Cohensius</u> , Ella Segev	Sequential First Price Auction
	<u>Shoshana Anily</u>	Total Balancedness of Regular Cooperative Games
S2c Supply Chain Management 1 Chair: Michal Tzur אלמוג	<u>Reut Noham</u> , Michal Tzur	Network Design in Humanitarian Supply Chains: Pre and Post Disaster Decision Making
	<u>Dina Smirnov</u> , Yale T. Herer, Retsef Levi, Assaf Avrahami	The Two-Phase Stochastic Lotsizing Problem with Optimal Timing of Additional Replenishment
	<u>Ohad Eisenhandler</u> , Michal Tzur	The Humanitarian Pickup and Distribution Problem
S2d Combinatorial Optimization 1 Chair: Seffi Naor אקוומרין	<u>Niv Buchbinder</u> , Moran Feldman, Seffi Naor, Roy Schwartz	Approximation Algorithms for Submodular Maximization
	<u>Michael Dreyfuss</u> , Yahel Giat	Fill Rate Window as a Criterion for Spares Allocation
	<u>Yaarit M. Cohen</u> , Liron Yedidsion	The Traveling Repairman Problem on a Single Line with Release Times

12:25-13:45 Lunch, & Orsis General Assembly (13:25)

13:45-14:35 **S3 Plenary Lecture** אלמוג

Yishay Mansour, Tel Aviv University
Robust Inference and Local Algorithms

Chair: Nahum Shimkin

14:35-15:25 **S4 Semi-Plenary Tutorials**

Rami Atar, Technion פנינה

Moderate Deviations and Heavy Traffic

Chair: Haya Kaspi

Eran Hanany אקוורין

Dynamic Decisions under Ambiguity

Chair: Gail Gilboa Freedman

15:25-15:45 Coffee Break

15:45-17:25 **S5 Parallel Sessions:**

<p>S5a: Topics in Continuous Optimization</p> <p>Chair: Shoham Sabach</p> <p>פנינה</p>	<u>Shimrit Shtern</u> , Amir Beck	Linearly Convergent Conditional Gradient Variants for Non-strongly Convex Functions
	<u>Shoham Sabach</u> , Amir Beck Marc Teboulle	An Alternating Semi-Proximal Method for Nonconvex Problems
	Jérôme Bolte, <u>Edouard Pauwels</u>	Nonsmooth Optimization with Semi-algebraic Data: Convergence Beyond the Proximal Setting
	<u>Nir Halman</u>	Approximation Schemes for Stochastic Dynamic Programs with Continuous State and Action Spaces
<p>S5b Supply Chain Management 2</p> <p>Chair: Yael Perlman</p> <p>אלמוג</p>	Tal Avinadav, Tatyana Chernonog, <u>Yael Perlman</u>	Consignment Contract for Mobile Apps Between a Single Retailer and Competitive Developers with Different Risk Attitudes
	<u>Yigal Gerchak</u>	Strategic Inventory with Demand Uncertainty
	<u>Yale Herer</u> , Avinoam Tzimerman	3rd Party Logistics Coordinator Mechanism for Transshipments in a Decentralized System
	Tal Avinadav, <u>Tatyana Chernonog</u> , Yael Perlman	The Effect of Risk Sensitivity on Supply Chain Management under a Consignment Contract with Revenue Sharing and Quality Investment

(S5 continues on the next page)

<p>S5c OR in Practice</p> <p>Chair: Michael Masin</p> <p>אקוורין</p>	<u>Vladimir Lipetz</u>	Closing the Gap between OR Models and Real Applications
	Evgeny Shindin, Odellia Boni, <u>Michael Masin</u>	Robust Optimization of System Design
	David Amid, Ateret Anaby-Tavor	Watson Tradeoff Analytics - Decision Making Made Accessible for Everyone
	<u>Zilla Sinuany-Stern</u>	OR/MS in the Higher Education
<p>S5d Health Care Management</p> <p>Chair: Amir Elalouf</p> <p>סוויטה</p>	<u>Illana Bendavid</u> , Yariv N. Marmor, Boris Shnits	Developing an Optimal Appointment Scheduling for Healthcare Systems with Non-flexible Uptake Time Under Pre-determined Service Levels
	<u>ישראל דויד</u> , מיכאל בנדרסקי	מודל החלטה דינמי לקבלת כליה מן המת – בהתאם לפונקציית הכשל והתפלגות החיים של המועמד להשתלה
	<u>Guy Wachte</u> , Amir Elalouf	Using a "Floating Patients" Approach for Improving Patients-Flow in Hospitals and Emergency Departments
	<u>Eliaz Miller, MD</u>	Challenges in Medical Quality Improvement

Evening Program (Sunday)

17:45-19:45 National Maritime Museum (*bus leaves at 17:45*)

19:45-21:15 Dinner, with Guest Lecture:

ד"ר ג'ק סילברמן, המכון הלאומי לאוקיאנוגרפיה. השלכות סביבתיות של חיפושי גז ונפט בים העמוק באזור המים הכלכליים של ישראל.

Detailed Program - Monday, 11.5

09:00-09:30 Registration

09:30-11:10

M1 Parallel Sessions:

<p>M1a Combinatorial Optimization 2: <i>In Memory of Uri Yovel</i></p> <p>Chair: Rafi Hassin אלמוג</p>	Rafi Hassin, Uri Yovel	Sequential Scheduling on Identical Machines
	Tal Raviv, Uri Yovel, Tom Cherchy	New Integer Programming Formulation of Routing Problems in Dense Networks
	Dorit S. Hochbaum, <u>Asaf Levin</u>	Weighted Matching with Pair Restrictions
	Enrique Gerstl, <u>Gur Mosheiov</u>	Single Machine Scheduling to Minimize Total Earliness-Tardiness with Unavailability Period
<p>M1b: Queues and Stochastic Systems 1</p> <p>Chair: Galit Yom-Tov פנינה</p>	Nitzan Carmeli, Haya Kaspi, Avishai Mandelbaum	Modeling and Analyzing IVR Systems, as a Special Case of Self-services
	Zhenghua Long, Nahum Shimkin, Jiheng Zhang	Optimal Priority Control for Multiclass Many-server Queues with General Patience Distributions
	Galit B. Yom-Tov, Jing Dong, Elad Yom-Tov	The Impact of Delay Announcements on Hospital Network Coordination and Waiting Times
	Eitan Bachmat	Geometric Queueing Theory
<p>M1c Game Theory 2</p> <p>Chair: Gail Gilboa Freedman אקוומרין</p>	Shiran Rachmilevitch	Egalitarian-Utilitarian Bounds in Nash's Bargaining Problem
	Itai Arieli	Payoff Externalities and Social Learning
	Gail Gilboa Freedman, Rann Smorodinsky	Axiomatization of Privacy
	Gadi Fibich, <u>Arieh Gavious</u>	Revenue Equivalence of Large Asymmetric Auctions
<p>M1d OR Applications in the Israeli Police</p> <p>Chair: Mali Sher סוויטה</p>	חנינית אפרתי, תהילה הירש, אירית נוביק, מלי שר	ייעול עבודת הסיירים ביחידת המקומות הקדושים של משטרת-ישראל
	שירלי ארקוסין, אורטל סעידיאן, איריס פורמה, מלי שר	השמת עובדים אופטימאלית
	אלי אורבר, ינון סבתו, מיכאל דרייפוס, מלי שר	ייעול פריסת מצלמות האכיפה במשטרת-ישראל
	Mali Sher, Nicole Adler, Shalom Hakkert	A Traffic Enforcement Camera Operational Model

11:10-11:30 Break

11:30-12:20

M2 Semi-Plenary Tutorials

Assaf Zeevi, Columbia University פנינה

Chasing Bandits: Exploration and Exploitation in a Non-stationary Environment

Chair: Michal Penn

Iddo Eliazar, Intel אקוורין

From Inequality to Big Data: The Sociogeometry of Sizes

Chair: Uri Yechiali

12:20-13:20 Lunch

13:20-14:10

M3 Plenary Lecture

אלמוג

Aharon Ben-Tal

Some Remedies for Some Intractable Optimization Problems

Chair: Avishai Mandelbaum

14:15-15:55

M4 Parallel Sessions:

M4a: Optimization and Stochastics <i>Prize Winners Session</i> Chair: Moshe Haviv אלמוג	Amir Beck, <u>Nadav Hallak</u> <i>(Rothblum Award)</i>	On the Minimization Over Sparse Symmetric Sets: Projections, Optimality Conditions and Algorithms
	Josh Reed, <u>Yair Shaki</u> <i>(Rothblum Award)</i>	A Fair Policy for the G/GI/N Queue with Multiple Server Pools
	Liron Ravner <i>(Mehrza Award)</i>	Equilibrium Arrival Times to a Queue with Order Penalties
	<u>Arik Sadeh</u>	An Asymptotically Optimal Online Algorithm to Choosing Binary Factors Affecting Purchasing in e-Commerce
M4b Scheduling Chair: Dvir Shabtay פנינה	Tal Grinshpoun, Elad Shufan, <u>Hagai Ilani</u>	Public Transportation with Flexible Timetable
	<u>Enrique Gerstl</u> , Gur Mosheiov	Scheduling with Two Competing Agents to Minimize Total Weighted Earliness
	<u>Baruch Mor</u> , Gur Mosheiov	Minimizing Maximum Earliness and Minimizing the Number of Early Jobs on a Proportionate Flowshop
	<u>Dvir Shabtay</u> , Shlomo Karhi	An Asymptotically Optimal Online Algorithm to Minimize the Total Completion Time on Two Multipurpose Machines with Unit Processing Times

(M4 continues on the next page)

M4c Optimization Chair: Gideon Weiss סוויטה	Saleh Soltan, Mihalis Yannakakis, <u>Gil Zussman</u>	Joint Cyber and Physical Attacks on Power Grids: Graph Theoretical Approaches for Information Recovery
	<u>Renata Poznanski</u> , Refael Hassin	Optimal Multi-Period Network Flows with Coupling Constraints
	<u>Rafiq Mansour</u> , Yair Censor	New Douglas-Rachford Algorithmic Structures and Their Convergence Analyses
	<u>Evgeny Shindin</u> , Gideon Weiss	A simplex-type Algorithm for Continuous Linear Programming
M4d: Queues and Stochastic Systems 2 Chair: Yoav Kerner אקוורין	<u>Yoav Kerner</u> , Opher Baron	Queueing Model for Safety Stock Inventory Model with Perishable Items and General Distribution
	<u>Ruth Sagron</u> , Gad Rabinowitz, Israel Tirkel	Hybrid Simulation-Regression Approximation for Tandem Queues with Downtime Events
	<u>Barron Yonit</u>	Clearing Control Policies for MAP Inventory Process with Partially Satisfied Demand
	<u>Tal Avinadav</u> , Tatyana Chernonog, Yael Lahav, Uriel Spiegel	Dynamic Pricing and Promotion Expenditures in an EOQ Model of Perishable Items

15:55-16:10 Break

16:10-17:25

M5 Parallel Sessions:

M5a Transportation Chair: Tal Raviv אלמוג	<u>Mor Kaspi</u> , Tal Raviv, Michal Tzur	Regulating One-Way Vehicle Sharing Systems through Parking Reservation Policies
	<u>Sharon Datner</u> , Tal Raviv, Michal Tzur	Setting Inventory Levels in Bike-Sharing Networks
	<u>Hila Hindi-Ling</u> , Hillel Bar-Gera, Arie Sachish	The Effect of a Quayside Cranes Buffer on Ships Unloading Process
M5b Water Management Chair: Amos Bick פנינה	<u>Amos Bick</u> , Ioannis K. Kalavrouziotis, Gideon Oron	Modeling Combined Technological, Environmental and Economic Considerations in Domestic Sludge Reuse via the Analytic Hierarchy Process (AHP)
	<u>David Raz</u> , Ariel Daliot	A Generic Modeling Language for Water Supply Systems Optimization
	Beni Lew, Olga Tarnapolski, Vladimir Yudachev, <u>Amos Bick</u>	Membrane Treatment of Brackish Groundwater for Unrestricted Use for Irrigation and Sustainable Agricultural Production: Decision Analysis via The Hasse Diagram Technique (HDT)
M5c: Strategic Behavior in Queues Chair: Moshe Haviv אקוורין	Moshe Haviv, <u>Binyamin Oz</u>	Self-Regulation of a Queue via Random Priorities
	<u>Moshe Haviv</u> , Liron Ravner	Accumulating Priority Queue with Strategic Customers
	<u>Nahum Shimkin</u>	What to (Truthfully) Tell Customers to Make Them Join a Queue

17:25-17:30 Fairwell