

# SCIENTIFIC SCHEDULE

## Monday July 8<sup>th</sup>

<b>10:30</b>	<b>Conference Opening</b>			<b>Room: Eng Auditorium</b>
10:30-10:40	Organizing Committee			
10:40-10:50	Fikri Karaesmen, Dean of College of Engineering, Koc University			
10:50-11:00	Sally Brailsford , Chair of ORAHS			
<b>11:00-12:30</b>	<b>Panel Discussion</b>			<b>Room: Eng Auditorium</b>
<b>Healthcare Reform and New Challenges in Turkish Healthcare System and Operational Research</b>				
<b>Moderator:</b> Prof. Dr. Yaşar Özcan				
Prof. Dr. Sabahattin Aydın (Rector of Istanbul Medipol University)				
Prof. Dr. Hacer Özgen Narci (Head of Healthcare Management Department at Acıbadem University)				
Prof. Dr. Şevket Ruacan (Dean of Medical School at Koç University)				
<b>14:00-15:30</b>	<b>Session 1</b>			
	<b>1A Public Health Policy</b> Room: SOS Z21	<b>1B Operating Room Planning &amp; Scheduling (1)</b> Room: SOS Z27	<b>1C Cancer Treatment Planning</b> Room: SOS 103	<b>1D Modeling Length of Stay</b> Room: SOS 104
	<b>Brian P Reddy</b> An MCDA approach to prioritising public health interventions: A knowledge-based approach to reducing tobacco prevalence in South Yorkshire	<b>Elena Tànfani</b> Robust solutions for the advance surgery scheduling problem	<b>Siqiao Li</b> Operation management of radiotherapy treatment: Literature review	<b>Sally Brailsford</b> The effect of outlying patients to clinically inappropriate wards
	<b>Joe Viana</b> Whole systems modelling of social care in Hampshire in the United Kingdom	<b>Addis Bernardetta</b> An online-offline approach to the OR planning problem under uncertain surgery duration	<b>Mehmet A Begem</b> Reducing wait times and improving treatment planning process for radiation therapy	<b>Maria Guzman Castillo</b> Understanding patient length of stay: A finite mixture approach
	<b>Sonia Vanderby</b> Can improved appointment booking policies effectively improve patient access while also reducing imaging costs?	<b>Inês Marques</b> A bicriteria heuristic approach for an elective surgery scheduling problem	<b>Alexander Scherrer</b> Software assisted decision making in breast cancer therapy planning	<b>Adele H Marshall</b> The discrete conditional phase-type distribution for modelling patient length of stay in hospital in Italy
	<b>Onur Uzunlar</b> A preliminary study to optimally locate the clinical video telehealth units within veterans affair white river junction area	<b>Serhat Gul</b> Dynamic scheduling of surgeries under uncertainty	<b>Arturo E. Pérez Rivera</b> Preventing delays in radiotherapy by allocating linac capacity in advance	

**16:00-  
17:30**      **Session 2**

**2A Performance Evaluation**  
Room: SOS Z21

**2B Disease Modeling and Policy**  
Room: SOS Z27

**2C Tutorial 1**  
Room: SOSB07

**Marion Sabine Rauner**  
Efficiency of rescue  
departments of the Austrian  
Red Cross: A data envelopment  
analysis benchmarking study

**Melike Hazal Can**  
A dynamic simulation model for  
insulin resistance and Type II  
diabetes in the context of  
obesity

**Stefan Nickel**  
Healthcare Logistics

**Tomi Malmström**  
Effects of patient case-mix to  
operational performance of ED

**Brian Dangerfield**  
Use of a model for setting an  
achievable public health target:  
The case of childhood obesity in  
the UK

**Guilan Kong**  
Integrated performance  
assessment of orthopedics  
care from medical quality and  
efficiency dimensions

**Elvan Gokalp**  
Dynamic modeling of peritoneal  
dialysis and its implementations  
in children with chronic renal  
failure

**Martin Utley**  
Notes on a shambles

**Janette McQuillan**  
Using system dynamics to  
determine the long term  
management consequences for  
coronary heart disease patients

## Tuesday July 9<sup>th</sup>

<b>09:30-11:00</b>	<b>Session 3</b>			
	<b>3A Healthcare Resource Planning (1)</b> Room: SOS Z21	<b>3B Screening and Prevention</b> Room: SOS Z27	<b>3C Workforce Scheduling</b> Room: SOS 103	<b>3D Modeling &amp; Optimizing in Emergency Medical Systems (1)</b> Room: SOS 104
	<b>Fermín Mallor</b> Queueing control problems: from theory to practice in health care	<b>Ali Akgunduz</b> Agent-based simulation for behaviour modeling: evaluating alternative influenza prevention strategies	<b>Roberto Aringhieri</b> Advanced Workforce Staffing in Healthcare via Hybrid Metaheuristic	<b>Erwin W. Hans</b> Design and optimization of an integrated emergency post. PART 1: Design
	<b>Navid Izady</b> Appointment capacity planning in specialty clinics with no-shows and cancellations: A queueing approach	<b>Francisco Santos Sabbadini</b> Multiphase model for flow management of chronic heart patients	<b>Aleida Braaksma</b> Developing and testing a computerized decision support system for daily nurse-patient assignment	<b>Nardo J. Borgman</b> Design and optimization of an integrated emergency post. PART 2: Systematic improvements using discrete event simulation
	<b>Maartje van de Vrugt</b> Assigning treatment rooms at the Emergency Department	<b>Zehra Önen</b> Screening policies for Alzheimer's disease	<b>Egbert van der Veen</b> A flexible iterative improvement heuristic to support creation of feasible employee schedules in self-scheduling	<b>Mahsa Ghandehari</b> A mixed integer model for allocation and routing emergency medical facilities in Large-Scale Emergencies
	<b>David Stanford</b> A Queueing model for deceased-donor solid organ transplantation			<b>Glaucio Henrique Barros</b> A model for sizing ambulances fleet of Fireman's operational command group for emergencies on central region of Rio de Janeiro
<b>11:30-12:30</b>	<b>Keynote Talk</b>			<b>Room:</b> Eng. Auditorium
	<b><i>New and Old Forces Are Shaping Major Changes in Health Care Delivery Presenting Great Opportunities for Operations Research in Health Care</i></b>			
	Prof. William P. Pierskalla (Distinguished Professor Emeritus and Dean Emeritus at UCLA & Ronald A. Rosenfeld Professor Emeritus at the University of Pennsylvania)			
<b>14:00-15:30</b>	<b>Poster Display</b>		<b>Room:</b> The corridor next to rooms SOS103-SOS104	

**15:30-  
17:00**     **Session 4**

**4A Operating Room Planning  
& Scheduling (2)**  
Room: SOS Z21

**4B OR Methodologies for Home  
Care** Room: SOS Z27

**4C Tutorial 2**  
Room: SOSB07

**Sebastian Rachuba**  
Impact of robust operating  
room schedules on  
stakeholders' interests

**Semih Yalcindag**  
Assignment and routing  
problems in home health care  
services

**Margaret Brandeau**  
Health Policy Modeling

**Evren Güney**  
An efficient solution technique  
to solve the operating room  
planning problem

**Eloi Duchaussoy**  
Dynamic re-scheduling for home  
health care vehicle routing  
problem

**Emine Akyol**  
Determining the number and  
location of emergency medical  
stations in Eskisehir

**Giuliana Carello**  
Comparing two different  
objective functions in a  
cardinality-constrained model for  
the assignments in Home Care

**Ettore Lanzarone**  
A multilevel cardinality-  
constrained model for the  
nurse-to-patient assignment  
problem in Home Care

## Thursday July 11<sup>th</sup>

<b>09:30-11:00</b>	<b>Session 5</b>			
	<b>5A Improving Healthcare Delivery</b> Room: SOS Z21	<b>5B Modeling Infectious Diseases</b> Room: SOS Z27	<b>5C Health Economics</b> Room: SOS 103	<b>5D Operating Room Planning &amp; Scheduling (3)</b> Room: SOS 104
	<b>Jan Vissers</b> Managed outcomes: An operations management and demand based approach to regional healthcare delivery system: Methodology and modeling issues	<b>Alexander R Rutherford</b> Estimating HIV Incidence: A mathematical modelling approach	<b>Reza Mahjoub</b> Health economic evaluation of a pay-for-performance risk-sharing agreement	<b>Tagi Hanalioğlu</b> Estimating operational and surgical team network effects on surgery durations
	<b>Mahdi Mahdavi</b> A comparative analysis of operations and performance of a regional stroke service in six EU countries. Model, findings and benchmarking issues	<b>Margaret Brandeau</b> HIV treatment and prevention: A simple model to determine optimal investment	<b>Kenan Arifoglu</b> A two-sided mechanism to coordinate the influenza vaccine supply chain	<b>Patrick Soriano</b> Assessing the impact of patient sequencing in stochastic operating room planning
	<b>Tom Bowen</b> Scenario models of healthcare process and patient outcomes	<b>Sarah Kok</b> Operational strategies for improving the HIV testing program in Vancouver, Canada	<b>Mónica Duarte Oliveira</b> Tactical planning of an equitable long-term care system under uncertain conditions	<b>Fabrizio Sperandio</b> Operating room scheduling under uncertainty: An efficient simulation optimization approach
		<b>Dionne Aleman</b> An efficient approximation algorithm for the critical node detection problem	<b>Claudio Deiana Deiana</b> Disability and labour market outcomes: An empirical analysis across Europe	<b>Marzieh Soltanolkottabi</b> Capacity planning in operating rooms by means of centralized data envelopment analysis: Case study of Alzahra Hospital in Isfahan-Iran
<b>11:30-13:00</b>	<b>Panel Discussion</b>			<b>Room: SOSB07</b>

### ***Future of Healthcare: Challenges for Operations Research***

**Chair:** Prof. Dr. Mike Pidd

Prof. Dr. William P. Pierskalla (The Anderson School at UCLA & The Wharton School, Univ. of Pennsylvania)

Prof. Dr. Yasar Ozcan (Department of Health Administration, Virginia Commonwealth Univ.)

Prof. Dr. Marion Rauner (School of Business, Economics and Statistics, University of Vienna)

Prof. Dr. Mike Pidd (The Management School, Lancaster University)

Tom Bowen (The Balance of Care Group, U.K.)

**14:30-16:00**      **Session 6**

<b>6A Decision Support</b> Room: SOS Z21	<b>6B Emergency Department Modeling</b> Room: SOS Z27	<b>6C Tutorial 3</b> Room: SOSB07
<b>Jiun Yu Yu</b> Design and operations for online-offline-integrated healthcare networks facilitators	<b>Dave Worthington</b> Implementing a combined analytical queueing and simulation-based staffing approach for A&E departments	<b>Mariel Lavieri</b> Stochastic Disease Modeling and Chronic Disease Management
<b>Guilan Kong</b> Pre-hospital trauma assessment by combining multiple trauma scores	<b>Ruth Luscombe</b> Reactive scheduling to minimize tardiness of flow time targets in the Emergency Department	
<b>Amene Alimohammadi</b> Rule extraction for pre-eclampsia based on Genetic Algorithm	Sima Ajami Impact of implementing scenarios' simulation on waiting time at emergency department	
<b>Mónica Duarte Oliveira</b> Developing a methodology to support ICD coding using Electronic Health Record structured data: Issues and insights from an application to real-world healthcare settings	<b>Paula Andrea Velásquez Restrepo</b> Dynamics of patient care in the hospital emergency department and its effect on the overcrowding.	

**16:30-18:00**      **Session 7**

<b>7A Healthcare Supply Chains</b> Room: SOS Z21	<b>7B Location Problems in Health Care</b> Room: SOS Z27	<b>7C Patient Scheduling</b> Room: SOS 103	<b>7D Healthcare Resource Planning (2)</b> Room: SOS 104
<b>Sultan Turhan</b> Vendor managed inventory via SOA in healthcare supply chain management	<b>Dirk Degel</b> Dynamic ambulance location providing suitable coverage for time-dependent demand	<b>Zheng Zhang</b> Simulation-based optimization of surgery appointment scheduling	<b>Eylül Damla Gönül</b> A system dynamics model for the analysis of hospital laboratory capacity
<b>Nazaré Rego</b> Evaluating segmented health care supply chain strategies	<b>Derya Demirtaş</b> Optimizing the deployment of public access defibrillators	<b>Michael Samudra</b> Implications of switching from a to-day to a to-week patient scheduling strategy, an application at the UZ Leuven	<b>Tolga Tezcan</b> Determining the optimal configuration of hospital inpatient rooms in the presence of isolation patients
<b>Cigdem Gurgur</b> Health care product procurement in dual supplied systems	<b>Soheil Davari</b> The bi-objective equitable preventive healthcare network design	<b>Atle Riise</b> Operational activity scheduling in a hospital laboratory	<b>Asli Ozen</b> Modeling hospital-wide patient flows using simulation
<b>Yannick Kergosien</b> A Benders decomposition based heuristic for a combined transportation and scheduling problem in chemotherapy production		<b>Yuwei Lu</b> Elective inpatient admission with delay announcement	<b>Mario Jorge Ferreira De Oliveira</b> A visual platform for Hospital Admission

## Friday July 12<sup>th</sup>

<b>9:30-11:00</b>	<b>Session 8</b>		
	<b>8A Process Improvement and Quality</b> Room: SOS Z21	<b>8B Statistical Methods in Healthcare</b> Room: SOS Z27	<b>8C Modeling and Optimizing in Emergency Medical Systems (2)</b> Room: SOS 103
	<b>Martin Andrew Pitt</b> How do we know we are helping? – Towards a framework for the evaluation of operational research in healthcare	<b>Inad Nawajah</b> Estimating patient demand progression in Home Care: a Bayesian modeling approach	<b>Claire Reeves</b> A generic ambulance scheduling and rostering methodology for metropolitan ambulance services
	<b>Kudret Demirli</b> Improving patient flow with lean methodology: A case study at the Montreal General Hospital Colorectal Department	<b>Fanwen Meng</b> Modeling patient waiting time via a transformed piecewise distribution using general phase-type distributions	<b>Julie Leanne Vile</b> Managing time-varying and prioritised demands when setting staffing requirements for Emergency Medical Services (EMS) in Wales
	<b>Cheryl Voake</b> Modelling the value of transferring ENT/Audiology secondary care services into a primary setting	<b>Stefano Alderighi</b> Assessing the correlation of individual characteristics on cost and length of genetic clinical pathways: a regression analysis approach	<b>Omar El Rifai</b> Stochastic scheduling in an Emergency Department
			<b>Malika Babes</b> Coloring a graph by a multi-agents system
<b>11:30-12:30</b>	<b>Business Meeting</b>		<b>Room: SOSB07</b>

