

# **ORAHS2020**

Short Program

July 21, 2020

# TECHNICAL PROGRAM

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Monday, 9:30-11:00

■ **MA-01**

*Monday, 9:30-11:00 - 1*

**Opening Session Morning**

Stream: Monday

*Invited session*

Chair: *Inês Marques*

Chair: *Roberto Aringhieri*

Chair: *Marion Rauner*

Chair: *Patrick Hirsch*

Chair: *Margit Sommersguter-Reichmann*

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Monday, 11:00-12:00

■ **MB-01**

*Monday, 11:00-12:00 - 1*

**Keynote Peter Zweifel**

Stream: Monday

*Keynote session*

Chair: *Margit Sommersguter-Reichmann*

**1 - Preference Measurement in Health Using Experiments**

*Peter Zweifel*

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**Monday, 13:00-13:30****■ MC-01***Monday, 13:00-13:30 - 1***Opening Session Afternoon**

Stream: Monday

*Invited session*Chair: *Marion Rauner*Chair: *Patrick Hirsch*Chair: *Margit Sommersguter-Reichmann*Chair: *Roberto Aringhieri*Chair: *Inês Marques***Monday, 13:30-15:30****■ MD-01***Monday, 13:30-15:30 - 1***Health Care Networks**

Stream: Monday

*Invited session*Chair: *Michael Carter***1 - Embedding OR/systems modelling as decision support in health planning: establishing a Community of Practice***Sally Brailsford, Steffen Bayer, Con Connell, Jonathan Klein***2 - Evaluating the Effectiveness and Efficiency of a Wales-wide public health initiative.***Mark Tuson, Paul Harper, Daniel Gartner***3 - Sim.Pro.Flow - Automating Simulation Build***Emma Aspland, Paul Harper, Daniel Gartner, Edilson Arruda, Geraint Palmer, Phil Webb, Peter Barrett-Lee***4 - Analyst-driven development of an open-source simulation tool to address poor uptake of O.R. in health-care***Christos Vasilakis, Richard Wood***■ MD-02***Monday, 13:30-15:30 - 2***Health Care Workforce Scheduling I**

Stream: Monday

*Invited session*Chair: *Inês Marques***1 - The Value of Information in Multi-Skilled Nurse Scheduling***Jan Schoenfelder***2 - Need-based Workforce Planning for Healthcare Services Delivered by Teams***Majid Taghavi, Nader Azad***3 - Physician Staffing and Shift Scheduling at Emergency Departments with Time Varying Productivity***Negar Ganjoughighi, Marco Bijvank, Alireza Sabouri***4 - Nurse rescheduling with a fair distribution of shift changes***Lena Wolbeck, Natalia Kliewer, Inês Marques***■ MD-03***Monday, 13:30-15:30 - 3***Infectious Disease Policy Modelling**

Stream: Monday

*Invited session*Chair: *Daniel Gartner*

**1 - A Rule-based Digital Vaccination Decision Support for Child Immigrants Immunization Coordination in Sweden - The VacSam Digital Service**  
*Odd Steen, Nicklas Holmberg*

**2 - Childhood Vaccination in Vienna: A Cross-Sectional Survey Conducted in 4th Grades of Public Primary Schools**  
*Marion Rauner, Simone Schnedlitz, Sabine Blaschke*

**3 - Modeling HIV incidence and prevalence in Turkey, 2018-2030**  
*Emine Yaylali, Zikriye Melisa Erdoğan*

## Monday, 16:00-18:00

### ■ ME-01

*Monday, 16:00-18:00 - 1*

#### Elderly and Mental Health Care Planning

Stream: Monday

*Invited session*

Chair: *Leslie Anne Campbell*

**1 - Informing the Transformation of Mental Health and Addictions Service: A Realist Evaluation**

*Leslie Anne Campbell, Jill Chorney, Sharon Clark, Debbie Emberly, Julie MacDonald*

**2 - Network-based operational modelling of healthcare systems to support service improvement**

*Sean Manzi*

**3 - Regionalization in perinatal mental health in Ile de France**

*Catherine Crenn-hebert*

### ■ ME-02

*Monday, 16:00-18:00 - 2*

#### Emergency Care Planning I

Stream: Monday

*Invited session*

Chair: *Mario Jorge Ferreira de Oliveira*

**1 - Characterization of Care Complexity in Emergency Departments**

*Marco Bijvank, Seung-Yup Lee*

**2 - Managing Emergency Department Patient Flow and Nurse Staffing using Fluid Approximations for Multi-Class Pooled Service Queues**

*Maria Mayorga, Siddhartha Nambiar*

**3 - A Simulation-Optimization approach for parameter calibration of Emergency Department discrete event simulation model**

*Massimo Roma, Alberto De Santis, Laura De Vito, Tommaso Giovannelli, Stefano Lucidi, Mauro Messedaglia, Federico Petitti, Ferdinando Romano*

**4 - Modelling the use of ICU beds in the State of Rio de Janeiro using big data, Simulation and Artificial Intelligence**

*Mario Jorge Ferreira de Oliveira*

### ■ ME-03

*Monday, 16:00-18:00 - 3*

#### Machine Learning Approaches in Health Care

Stream: Monday

*Invited session*

Chair: *Evrin Didem Gunes*

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**1 - A personalized approach to the allocation of complex care delivery under parameter uncertainty**

*Onur Demiray, Evrim Didem Gunes, E. Lerzan Ormeci*

**2 - Improvement of patients outcome through the optimization of pre-surgical times and Length of Stay (LOS)**

*Santamaria-Acevedo Gustavo*

**3 - Predicting and Improving Patient-Level Antibiotic Adherence**

*Margaret L. Brandeau*

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**Monday, 18:30-19:00**

**■ MF-01**

*Monday, 18:30-19:00 - 1*

**e-Vienna City Tour**

Stream: Monday

*Invited session*

Chair: *Marion Rauner*

Chair: *Nurcan Cakan*

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**Tuesday, 9:30-11:30****■ TA-01***Tuesday, 9:30-11:30 - 1***Emergency Services - Ambulance Location**Stream: Tuesday  
*Invited session*Chair: *Maria Eugénia Captivo*

- 1 - The challenge of dispatching the right ambulance: A simulation-optimization approach**  
*David Olave-Rojas, Stefan Nickel*
- 2 - Overcoming modeling flaws in ambulance location models**  
*Pieter van den Berg*
- 3 - An investigation into 'optimal service hours' for the operation of response vehicles for the North West Air Ambulance Charity (NWAA)**  
*Dave Worthington, Roger Brooks, Lucy Morgan, David Briggs*
- 4 - Integrating ambulance dispatching and relocation problems: the Portuguese case**  
*Ana Sofia Carvalho, Maria Eugénia Captivo, Inês Marques*

**■ TA-02***Tuesday, 9:30-11:30 - 2***Home Health Care Planning**Stream: Tuesday  
*Invited session*Chair: *Patrick Hirsch*

- 1 - A study of integer programming formulations on traveling salesman problem with flexible coloring: models and application in home healthcare service**  
*Haibo Wang, Bahram Alidaee*
- 2 - Evaluation of an integrated mobility concept for home care staff and ambulant patients**  
*Lorena Reyes-Rubiano, Jana Voegl, Patrick Hirsch*
- 3 - The impact of synchronization in home health and social care services**  
*Helena Ramalhinho Lourenco, Jesica de Armas, Marcellus Lima*

**■ TA-03***Tuesday, 9:30-11:30 - 3***Chronic Care Policy Modelling**Stream: Tuesday  
*Invited session*Chair: *Eric Silverman*

- 1 - Simulating the interaction of social and child care demand with an agent-based model**  
*Eric Silverman, Umberto Gostoli*
- 2 - An Evaluation of Funding Reform for Cerebrovascular Stroke in Ontario, Canada**  
*Felipe Rodrigues, Salar Ghamat, Norine Foley, David Barrett, Matthew Meyer*
- 3 - Designing Cancer Care through Patients Experiences: A Perspective of Self-Determination Theory**  
*Jiun-Yu Yu*
- 4 - Evaluating service innovations to alleviate pressures in the management of patients with long term conditions through system dynamics modelling**  
*Gozdem Dural-Selcuk, Christos Vasilakis*

## Tuesday, 12:00-14:00

### ■ TB-01

Tuesday, 12:00-14:00 - 1

#### Emergency Care Planning II

Stream: Tuesday

*Invited session*

Chair: *Melanie Reuter-Oppermann*

- 1 - **Designing an Emergency Navigator for Assigning Emergency Patients to Hospitals**  
*Melanie Reuter-Oppermann, Clemens Wolff*
- 2 - **Triage algorithms for mass casualty incidents: Comparison, analysis and new systems.**  
*Christina Bartenschlager*
- 3 - **When to Switch? Index Policies for Resource Scheduling in Emergency Response**  
*Dong Li, Li Ding, Stephen Connor*
- 4 - **Fairness in ambulance routing for post disaster management**  
*Sara Bigharaz, Roberto Aringhieri*

### ■ TB-02

Tuesday, 12:00-14:00 - 2

#### Health Care Appointment Planning I

Stream: Tuesday

*Invited session*

Chair: *Jens Brunner*

- 1 - **Empirical Analysis of the Impact of Operational Factors On Clinical Decision Making in a Chronic Care Clinic**  
*Zehra Önen Dumlu, Evrim Didem Gunes, Raj Sengupta, Tolga Tezcan*
- 2 - **Chemotherapy planning and clinicians rostering in an outpatient cancer centre**  
*Elena Tanfani, Giuliana Carello, Paolo Landa, Angela Testi*
- 3 - **Minimizing Tardy Appointments in Physiotherapy Under Consideration of Continuity of Care and Therapist Preferences**  
*Jens Brunner, Sebastian Kling, Sebastian Kraul*

### ■ TB-03

Tuesday, 12:00-14:00 - 3

#### Operating Room Planning

Stream: Tuesday

*Invited session*

Chair: *Erik Demeulemeester*

- 1 - **Designing master surgery schedules with downstream unit integration via stochastic optimization**  
*Daniel Santos, Inês Marques*

- 2 - **Operating room planning and scheduling for outpatients and inpatients under uncertainty: A literature review and a simulation study**

*Lien Wang, Erik Demeulemeester, Vansteenkiste Nancy, Rademakers Frank*

- 3 - **Stochastic Scheduling of Operating Rooms And Reusable Medical Devices Under Dynamic Rescheduling**

*Enis Kayis, Elvin Coban, Seyyed Kian Farajkhah*

- 4 - **A mathematical programming framework to manage extended operating room hours**

*Mariana Oliveira, Valérie Bélanger, Angel Ruiz, Daniel Santos, Inês Marques*

**Tuesday, 15:00-16:00**

■ **TC-01**

*Tuesday, 15:00-16:00 - 1*

**Keynote Greg Zaric**

Stream: Tuesday

*Invited session*

Chair: *Marion Rauner*

- 1 - Incentives and Coordination in Healthcare**  
*Greg Zaric*
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**Tuesday, 16:30-18:00**

■ **TD-01**

*Tuesday, 16:30-18:00 - 1*

**Round Table on Prevention**

Stream: Tuesday

*Invited session*

Chair: *Bernhard Schwarz*

- 1 - Round Table on Challenges in Health Care Prevention**  
*Sally Brailsford, Margaret L. Brandeau, Alexandra Schosser, Bernhard Schwarz*
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**Tuesday, 18:30-19:00**

■ **TE-01**

*Tuesday, 18:30-19:00 - 1*

**e-Tour Sky Lounge**

Stream: Tuesday  
*Invited session*

Chair: *Marion Rauner*  
Chair: *Nurcan Cakan*

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## Wednesday, 13:30-15:30

### ■ WA-01

Wednesday, 13:30-15:30 - 1

#### Poster Session

Stream: Wednesday

*Invited session*

Chair: Roberto Aringhieri

Chair: Inês Marques

Chair: Sally Brailsford

Chair: Michael Carter

- 1 - **Application of forecasting techniques to predict the volume of EMS calls**  
*Paulo Abreu, Ana Paula Barbosa-Póvoa, Inês Marques*
- 2 - **Variability in hospital treatment costs: A time-driven activity-based costing approach for early stage invasive breast cancer patients**  
*Erin Roman*
- 3 - **Multi-site Pathology Service Optimisation**  
*Daniel Gartner, Daniel Tolley, Trish Chalk*
- 4 - **Patient adherence in healthcare problems: A systematic literature review of OR/MS approach**  
*Hakan Kılıç, Evrim Didem Gunes*
- 5 - **Multi-site and multi-service modelling for elderly and frail patients**  
*Elizabeth Williams, Paul Harper, Daniel Gartner*
- 6 - **Reducing Waiting Time for MRI Services Using Discrete Event Simulation**  
*Sara Ketabi, Michael Carter*
- 7 - **Developing and Benchmarking a Scatter Search for Markov Blanket Attribute Selection and Classification for Healthcare Data Sets**  
*John Threlfall*
- 8 - **Hybrid modelling of spread of anxiety due to virus infection**  
*Leonidas Sakalauskas*

## Wednesday, 16:00-18:00

### ■ WB-01

Wednesday, 16:00-18:00 - 1

#### Covid-19 Policy Modelling

Stream: Wednesday

*Invited session*

Chair: Alexander Rutherford

- 1 - **Discrete Event Simulation Model to support decision-making concerning COVID-19 patients' admissions in hospitals and Intensive Care Units**  
*Daniel García de Vicuña, Laida Esparza Artanga, Fermin Mallor*
- 2 - **A Queue Network Model of Ventilator Access during the COVID-19 Epidemic**  
*Alexander Rutherford, Samantha Zimmerman, Peter Dodek, Monica Norena, Alexa van der Waall*
- 3 - **Optimising the daily swab test collection to identify new cases of Covid-19**  
*Davide Duma, Roberto Aringhieri, Sara Bigharaz, Alessandro Druetto, Andrea Grosso*

**Wednesday, 18:30-19:00**

■ **WC-01**

*Wednesday, 18:30-19:00 - 1*

**e-Tour Schönbrunn**

Stream: Wednesday

*Invited session*

Chair: *Marion Rauner*

Chair: *Nurcan Cakan*

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**Thursday, 9:30-11:30****■ HA-01***Thursday, 9:30-11:30 - 1***Behavioral OR & Policies in Health Care**

Stream: Thursday

*Invited session*Chair: *Sally Brailsford***1 - Designing Delphi knowledge construction processes to enable OR behavioural research and extend stakeholders' analyses in health settings***Monica Oliveira, Liliana Freitas, Ana Vieira, Klára Dimitrovová, Carlos Bana e Costa***2 - Using a hybrid system dynamics and agent-based simulation to evaluate the External Reference Pricing regulation effect on access, affordability and availability***R Kazakov, Susan Howick, Alec Morton***3 - Should I stay or should I go? Understanding no-show behaviour among low-income patients in Bogotá, Colombia***David Barrera Ferro, Sally Brailsford, Honora Smith, Steffen Bayer***■ HA-02***Thursday, 9:30-11:30 - 2***Emergency Care Planning III**

Stream: Thursday

*Invited session*Chair: *Roberto Aringhieri***1 - Analysing the impact of workload-based patient to physician assignment on emergency department performance by use of discrete-event simulation***Lien Vanbrabant, Kris Braekers, Katrien Ramaekers***2 - Minimizing travel time in a neonatal care network by re-assigning general hospitals to Neonatal Intensive Care Units***Robin Buter, Gréanne Leeftink, Erwin W. Hans, Maarten Blanken, Willem de Vries***3 - A Review on Initiatives for Management of Daily Emergencies Prior to Arrival of Emergency Medical Services***Niki Matinrad, Melanie Reuter-Oppermann***4 - A simulation-based dss for ed process management***Cristiano Fabbri, Vincenzo Bua, Enrico Malaguti, Michele Monaci, Paolo Tubertini***■ HA-03***Thursday, 9:30-11:30 - 3***Health Economics I**

Stream: Thursday

*Invited session*Chair: *Alec Morton***1 - Multi-objective optimization of a Colorectal Cancer Screening Programme***Lauri Neuvonen, Mary Dillon***2 - Investigating a Subscription Payment Model for Antibiotic Purchasing***Euan Barlow, Alec Morton, Itamar Megiddo, Abigail Colson***3 - Prepare or react? Integrating large health shocks into life-cycle models***Michael Freiberger, Michael Kuhn, Stefan Wrzaczek*

**Thursday, 12:00-14:00****■ HB-01***Thursday, 12:00-14:00 - 1***Strategic Health Care Modelling**

Stream: Thursday

*Invited session*Chair: *Anders N. Gullhav***1 - Forecasting the bed census for surgical and internal departments***Nicky Schuermans, Richard Boucherie, Aleida Braaksma, Paul Joustra, Elise Van Zandbrink***2 - Policy design for selection of alternatives and physicians' consideration choice sets***Christine Huttin***3 - Emergency Department Layout Planning Using Simulation and Optimization***Anders N. Gullhav, Tore Bjørseth Berdal, Erlend Nydal, Henrik Andersson, Bjørn Nygreen***■ HB-02***Thursday, 12:00-14:00 - 2***Health Care Operations Management I**

Stream: Thursday

*Invited session*Chair: *Christos Vasilakis***1 - Combined master surgery and outpatient clinic scheduling***Thomas Bovim, Anita Abdullahu, Lars Hellemo, Anders N. Gullhav***2 - The Prisoner's Dilemma in healthcare scheduling***Marion Penn***3 - An optimal non-uniform piecewise constant approximation of the patient arrival rate for a more efficient representation of the Emergency Department arrival process***Tommaso Giovannelli, Alberto De Santis, Stefano Lucidi, Mauro Messedaglia, Massimo Roma***■ HB-03***Thursday, 12:00-14:00 - 3***Health Economics II**

Stream: Thursday

*Invited session*Chair: *Margit Sommersguter-Reichmann***1 - Changes in hospital efficiency and size in the age of city hospital investments: An integrated propensity score matching with data envelopment analysis***Songul Cinaroglu***2 - Frontier efficiency studies in healthcare and quality: A review***Margit Sommersguter-Reichmann***3 - Methodology for Estimating the Private and Societal Values of Antimicrobials***Itamar Megiddo, Abigail Colson, Euan Barlow, Alec Morton*

Thursday, 15:00-17:00

## ■ HC-01

Thursday, 15:00-17:00 - 1

### Health Care Operations Management II

Stream: Thursday

*Invited session*

Chair: *Stefan Nickel*

Chair: *Brecht Cardoen*

**1 - A board game to discuss fundamentals in operations management**

*Brecht Cardoen, Kris Meyers*

**2 - Bed Management - Hybrid simulation of a bed logistics flow at a Danish public hospital**

*Gaspard Hosteins, Allan Larsen, Dario Pacino, Christian Sørup*

**3 - Investigating cooperative hospital supply chain operations**

*Lotte Verdonck, Lien Vanbrabant, Silia Mertens, An Caris*

**4 - Healthy Supply Chains: How OR Inventories Can Save Millions**

*Tammi Hawa, Michael Carter*

**3 - Comparison of percentage prolonged times to tracheal extubation between a Japanese teaching hospital and one in the United States**

*Franklin Dexter*

## ■ HC-02

Thursday, 15:00-17:00 - 2

### Blood Collection/Supply Planning

Stream: Thursday

*Invited session*

Chair: *John Blake*

**1 - Optimization of blood inventory management - Portuguese Hospital Case Study**

*Maria Meneses, Inês Marques, Ana Paula Barbosa-Póvoa*

**2 - Modelling ferritin in Canadian blood donors**

*John Blake*

## ■ HC-03

Thursday, 15:00-17:00 - 3

### Health Care Appointment Planning II

Stream: Thursday

*Invited session*

Chair: *Fermin Mallor*

**1 - Optimizing the invitation process of colon cancer screening**

*Jasmijn Manders, Richard Boucherie, Gréanne Leefink, Hans Peter Lifmann*

**2 - Modeling Appointment Systems with Strategic Walk-ins**

*Feray Tuncalp, Evrim Didem Gunes, E. Lerzan Ormeci*

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**Thursday, 18:00-19:30****■ HD-01**

*Thursday, 18:00-19:30 - 1*

**e-Conference Dinner**

Stream: Thursday

*Invited session*

Chair: *Margit Sommersguter-Reichmann*

Chair: *Marion Rauner*

Chair: *Patrick Hirsch*

Chair: *Inês Marques*

Chair: *Roberto Aringhieri*

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**Friday, 9:30-11:30****■ FA-01***Friday, 9:30-11:30 - 1***ÖGOR Health Session**

Stream: Friday

*Invited session*Chair: *Margit Sommersguter-Reichmann*Chair: *Marion Rauner*

- 1 - An integrated framework to combine blood collection planning and inventory management**  
*Ettore Lanzarone, Semih Yalçındağ, Inês Marques, Luís Miguel Barros Dias Sousa*
- 2 - The power of motivation: Co-production of an m-health application for patients with obesity**  
*Doris Behrens, Daniel Gartner*
- 3 - A duration-distributed model of COVID-19 epidemics**  
*Raimund Kovacevic, Nikolaos Stilianakis, Vladimir Veliov*

**■ FA-02***Friday, 9:30-11:30 - 2***Clinical Pathways**

Stream: Friday

*Invited session*Chair: *Elena Tanfani*

- 1 - A perishable inventory approach for capacity planning in cancer pathways**  
*Edilson Arruda, Paul Harper, Tracey England, Daniel Gartner, Emma Aspland, Fabrício Ourique*
- 2 - Peri-operative elective path optimization through math-heuristic algorithms in the Local Health Authority of Bologna**  
*Marco Leonessi, Stefano Guicciardi, Annamaria Longanesi, Enrico Malaguti, Paolo Tubertini*

**■ FA-03***Friday, 9:30-11:30 - 3***Chemotherapy/Radiotherapy Scheduling**

Stream: Friday

*Invited session*Chair: *Alejandra Duenas*

- 1 - Chemotherapy production bilevel problem: Cost versus delay**  
*Alexis Robbes, Yannick Kergosien, Jean-Charles Billaut*
- 2 - MCDA modelling in an outpatient chemotherapy service**  
*Alejandra Duenas, Annabelle Glaize, Christine Di Martinelly, Isabelle Fagnot*
- 3 - Online algorithms for the radiotherapy patient scheduling problem**  
*Roberto Aringhieri, Davide Duma, Giuseppe Squillace*

**Friday, 12:00-14:00****■ FB-01***Friday, 12:00-14:00 - 1***ÖGOR Disaster Session**

Stream: Friday

*Invited session*Chair: *Patrick Hirsch*Chair: *Tina Wakolbinger*Chair: *Walter Gutjahr*

- 1 - Orchestrating Coordination between Humanitarian Organizations**  
*Maria Besiou, Lea Ruesch, Murat Tarakci, Niels Van Quaquebeke*
- 2 - Outsourcing in humanitarian logistics - status quo and future directions**  
*Tina Wakolbinger, Timo Gossler, Christian Burkart*
- 3 - Dynamic Prioritized Home Healthcare Routing and Scheduling in Emergencies and Routine Services**  
*Sibel Salman, Ahmet Cinar, Ozgur Araz*

**■ FB-02***Friday, 12:00-14:00 - 2***Health Care Modelling in Developing Countries**

Stream: Friday

*Invited session*Chair: *Honora Smith*Chair: *David Barrera Ferro*

- 1 - Sustainability in Hospital Supply Chain Management: Empirical research in a developing country in Latin America**  
*Veronica Duque-Urbe, William Sarache, Elena Valentina Gutiérrez*
- 2 - Contract Analysis for Rotavirus Vaccine Supply Chain in India**  
*Dheeraj Chandra, Vipin B*
- 3 - Resource delivery and allocation strategies for epidemic response in a rural context**  
*Linke Potgieter, Dean Matter*

**■ FB-03***Friday, 12:00-14:00 - 3***Health Care Workforce Scheduling II**

Stream: Friday

*Invited session*Chair: *Monica Oliveira*



**1 - A decomposition-based heuristic procedure for the Medical Student Scheduling problem**

*Babak Akbarzadeh, Broos Maenhout*

**2 - A multi-objective approach for staff scheduling at emergency medical services**

*Mariana Cunha, Pieter Smet, Inês Marques, Ana Paula Barbosa-Póvoa*

**3 - Nurse Scheduling for a Community Health Centre in Vancouver, Canada, using an Optimization and Simulation Approach**

*Samantha Zimmerman, Alan Bi, Trevor Dallow, Krisztina Vasarhelyi, Cameron Bye, Nicole Latham, Andy Day, David Hall, Tamon Stephen, Alexander Rutherford*

**Friday, 15:00-16:00**

**■ FC-01**

*Friday, 15:00-16:00 - 1*

**ORAHS Business Meeting**

Stream: Friday

*Invited session*

Chair: *Inês Marques*

Chair: *Roberto Aringhieri*

**Friday, 16:30-18:30****■ FD-01**

*Friday, 16:30-18:30 - 1*

**Closing Session**

Stream: Friday

*Invited session*

Chair: *Marion Rauner*

Chair: *Margit Sommersguter-Reichmann*

Chair: *Patrick Hirsch*

Chair: *Roberto Aringhieri*

Chair: *Inês Marques*

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