

Program

August 27

8:30 – 9:10 Registration

9:10 – 9:30 Opening session

9:30 – 10:30 Keynote talk 1 (Chair: Sabine Wittevrongel)

Mor Harchol-Balter

New breakthroughs in scheduling theory

10:30 – 11:00 Coffee break

11:00 – 12:10 Session 1: Strategic queueing (Chair: Karl Grill)

Refael Hassin and Jonathan H.P. Milo

On rational behavior in a loss system with one observable queue and one unobservable queue

Dimitris Logothetis and Antonis Economou

Strategic customer behavior in a transportation system: effect of information and queueing discipline

Ole Bueker and Bara Kim

Strategic customers in a bribe queueing system

12:20 – 14:00 Lunch

14:00 – 15:30 Session 2: Scheduling and service policies (Chair: Wuyi Yue)

Łukasz Kruk

Diffusion limits for SRPT and LRPT queues via EDF approximations

Huanle Xu, Huangting Wu and Wing Cheong Lau

Revisiting SRPT for job scheduling in computing clusters

Arnaud Devos, Dieter Fiems, Joris Walraevens and Herwig Bruneel

An approximate analysis of a Bernoulli alternating service model

Mayank Saxena, Stella Kapodistria and Rudesindo Núñez Queija

Perturbation analysis of two queues with random time-limited polling

15:30 – 16:00 Coffee break

16:00 – 17:30 Session 3: Queues in a random environment (Chair: Shoji Kasahara)

Eleonora Deiana, Guy Latouche and Marie-Ange Remiche

Sojourn time distribution in fluid queues

Mehmet Akif Yazici

Markov fluid queue model for video freeze probability in a random environment

Freek Verdonck, Herwig Bruneel and Sabine Wittevrongel

Delay analysis of a two-server discrete-time queue where one server is only intermittently available

Rein Nobel and Annette Rondaij

A discrete-time queueing model in a random environment

August 28

9:00 – 10:00 Keynote talk 2 (Chair: Tuan Phung-Duc)

Johan van Leeuwen

Sharp approximations and sharpest possible bounds for the GI/G/1 queue

10:00 – 10:45 Session 4: Retrial queues 1 (Chair: Evsey Morozov)

Kohei Akutsu and Tuan Phung-Duc

Analysis of retrial queues for cognitive wireless networks with sensing time of secondary users

Ekaterina Fedorova, Elena Danilyuk, Anatoly Nazarov and Agassi Melikov

Retrial queueing system MMPP/M/1 with impatient calls under heavy load condition

10:45 – 11:15 Coffee break

11:15 – 12:45 Session 5: Control and optimization in queues (Chair: Rein Nobel)

Yutaka Sakuma, Onno Boxma and Tuan Phung-Duc

A single server queue with workload-dependent service speed and vacations

Zsolt Saffer, Karl Grill and Wuyi Yue

M/M/1 queue with controllable service rate

Sungji Lee, Bara Kim and Jeongsim Kim

Optimal pricing and operating policy under customer equilibrium in an M/M/1 queue with high-low service rates

Yiannis Dimitrakopoulos, Antonis Economou and Stefanos Leonardos

Customer equilibrium behavior in a Markovian queue with an on/off information mechanism

12:45 – 13:45 Lunch

13:45 – 15:15 Session 6: Queueing networks (Chair: Pasquale Legato)

Michal Benelli and Refael Hassin

A closed queueing network with strategic service differentiation

Ioannis Dimitriou

Stationary analysis of a tandem queue with coupled processors subject to global breakdowns

Xinwei Bai and Jasper Goseling

A linear programming approach to Markov reward error bounds for queueing networks

Pasquale Legato and Rina Mary Mazza

Class aggregation for multi-class queueing networks with FCFS multi-server stations

16:30 Social event and conference dinner

August 29

9:00 – 10:30 Session 7: Queueing models in applications (Chair: Ioannis Dimitriou)

Wenjuan Zhao, Shunfu Jin and Wuyi Yue

Analysis of the average confirmation time of transactions in a blockchain system

Huanhuan Huang, Tong Ye and Tony T. Lee

Modelling of reservation ALOHA for wireless sensor networks

Shinto Hideyama, Tuan Phung-Duc and Yukihiko Okada

Queueing analysis of home delivery services with parcel lockers

Xuena Yan, Shunfu Jin, Wuyi Yue and Yutaka Takahashi

A MAP-based performance analysis on an energy-saving mechanism in cloud computing

10:30 – 11:00 Coffee break

11:00 – 11:45 Session 8: Retrial queues 2 (Chair: Joris Walraevens)

Andrei V. Zorine

Controlled M/M/1-RQ system with randomized acceptance from the orbit

Evsey Morozov and Taisia Morozova

A coupling-based analysis of a multiclass retrial system with state-dependent retrial rates

11:45 – 12:15 Invited talk (Chair: Onno Boxma)

Uri Yechiali

Explicit solutions for continuous-time QBD processes by using relations between matrix geometric analysis and the probability generating functions method

12:20 – 14:00 Lunch

14:00 – 15:30 Session 9: Stability and overflow analysis (Chair: Hiroyuki Masuyama)

Moeko Yajima and Hiroyuki Masuyama

Stability analysis of $G^X/GI/\infty$ queues

Evsey Morozov and Ruslana Nekrasova

Stability conditions of a multiclass system with NBU retrials

Nico van Dijk and Barteld Schilstra

A call packing bound extension for overflow loss

Fatma Basoglu Kabran and Ali Devin Sezer

Approximation of the exit probability of a stable Markov modulated constrained random walk

15:30 – 16:00 Coffee break

16:00 – 16:30 Closing session and best paper awards