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EDITORIAL

Special volume on 'Current Trends in Queueing Theory' of the second ECQT conference—Part 2

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The three papers summarized below comprise Part 2 of the Special Issue dedicated to work selected from the 112 presentations at the second, biannual, *European Conference on Queueing Theory*, held in Toulouse, France, July 18–20, 2016. These papers have been chosen, revised, and edited for publication through a careful refereeing process. Part 1 of the special issue appeared in *QUESTA* (vol. 86, issues 3 and 4, 2017). Both parts of the special issue would not have been possible without the help of the Technical Program Committee of ECQT and other anonymous referees. A companion special issue of *Performance Evaluation*, edited by Urtzi Ayesta and Balakrishna Prabhu, was also based on selected papers of *ECQT 2016.*

Dester, Fricker and Tibi study the symmetric join the shortest queue model with two servers. In the case of finite queues, the authors derive a simple formula for the blocking probability. In addition, the stationary distribution is characterized and bounds for the average total number of customers are obtained.

Anselmi investigates load balancing in parallel heterogeneous servers. Upon arrival of a job, the scheduler needs to decide to which server to send the job, and the queue lengths are unobservable. The author proposes a class of round-robin policies, and proves them to be optimal in a heavy-traffic many-server limiting regime.

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Van Leeuwen and Núñez Queija investigate the control of a tandem queue with batch service in the first queue. The objective is to dynamically determine the optimal batch size based on the state of the system. In order to approximate the optimal policy, the authors solve a related controlled fluid problem. The resulting heuristics are shown to provide good approximations and can be extended to general service distributions.