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Research output

Large fork-join networks with nearly deterministic service times

Schol, D., Vlasiou, M. & Zwart, B., 25 Dec 2019, In : arXiv.org,e-Print Archive, Mathematics. 36 p., arXiv 1912.11661v1.

Bounds and limit theorems for a layered queueing model in electric vehicle charging

Aveklouris, A., Vlasiou, M. & Zwart, B., 1 Oct 2019, In : Queueing Systems. 93, 1-2, p. 83-137 55 p.

Bounds and limit theorems for a layered queueing model in electric vehicle charging

Aveklouris, A., Vlasiou, M. & Zwart, B., Oct 2019, In : Queueing Systems. 93, 1-2, p. 83-137

A stochastic resource-sharing network for electric vehicle charging

Aveklouris, A., Vlasiou, M. & Zwart, B., Sep 2019, In : IEEE Transactions on Control of Network Systems. 6, 3, p. 1050-1061 12 p., 8709819.

Complete resource pooling of a load balancing policy for a network of battery swapping stations

Sloothaak, F., Cruise, J. R., Shneer, S., Vlasiou, M. & Zwart, B., 12 Feb 2019, In : arXiv.org,e-Print Archive, Mathematics. 60 p., 1902.04392.

Bounds and limit theorems for a layered queueing model in electric vehicle charging

Aveklouris, A., Vlasiou, M. & Zwart, B., 15 Oct 2018, In : arXiv. 1810.05473 , 36 p., 1810.05473.

Thematic poster on women in mathematics in the Netherlands

Vlasiou, M. & Kruseman, A., 31 Jul 2018.

Queueing networks for electric vehicle charging

Aveklouris, A., Vlasiou, M. & Zwart, B., 2018.

Stochastic networks for electric vehicle charging

Aveklouris, A., Vlasiou, M. & Zwart, B., 2018.

Heavy-traffic approximations for a layered network with limited resources

Aveklouris, A., Vlasiou, M., Zhang, J. & Zwart, A. P., 30 Dec 2017, In : Probability and Mathematical Statistics. 37, 2, p. 497-532

A stochastic resource-sharing network for electric vehicle charging

Aveklouris, A., Vlasiou, M. & Zwart, A. P., 15 Nov 2017, In : arXiv. 1711.05561, 9 p., 1711.05561.

Speed of convergence to the quasi-stationary distribution for Lévy input fluid queues

Palmowski, Z. & Vlasiou, M., 10 Nov 2017, In : arXiv. 1711.04041, 11 p., 1711.04041.

Electric vehicle charging: A queueing approach

Aveklouris, A., Nakahira, Y., Vlasiou, M. & Zwart, A. P., 1 Sep 2017, In : Performance Evaluation Review. 45, 2, p. 33-35 3 p.

Server waiting times in infinite supply polling systems with preparation times

Dorsman, J-PL., Perel, N. & Vlasidou, M., Apr 2016, In : Probability in the Engineering and Informational Sciences. 30, 2, p. 153-184

Asymptotic error bounds for truncated buffer approximations of a 2-node tandem queue

Vatamidou, E., Adan, I. J. B. F., Vlasidou, M. & Zwart, A. P., 2016. 41 p.

Dynamic server assignment in an extended machine-repair model

Dorsman, J. L., Bhulai, S. & Vlasidou, M., 2015, In : IIE Transactions. 47, 4, p. 392-413

Heavy-traffic asymptotics for networks of parallel queues with Markov-modulated service speeds

Dorsman, J. L., Vlasidou, M. & Zwart, B., 2015, In : Queueing Systems: Theory and Applications. 79, 3, p. 293-319 27 p.

Markovian polling systems with an application to wireless random-access networks

Dorsman, J. L., Borst, S. C., Boxma, O. J. & Vlasidou, M., 2015, In : Performance Evaluation. 85-86, p. 33-51 19 p.

A Lévy input fluid queue with input and workload regulation

Palmowski, Z. B., Vlasidou, M. & Zwart, B., 2014, In : Queueing Systems: Theory and Applications. 76, 1, p. 21-36

Corrected phase-type approximations for heavy-tailed queueing models in a Markovian environment

Vatamidou, E., Adan, I. J. B. F., Vlasidou, M. & Zwart, A. P., 2014.

Corrected phase-type approximations of heavy-tailed queueing models in a Markovian environment

Vatamidou, E., Adan, I. J. B. F., Vlasidou, M. & Zwart, A. P., 2014, Eindhoven: Eurandom. 48 p. (Report Eurandom; vol. 2014004)

Corrected phase-type approximations of heavy-tailed queueing models in a Markovian environment

Vatamidou, E., Adan, I. J. B. F., Vlasidou, M. & Zwart, B., 2014, In : Stochastic Models. 30, 4, p. 598-638 41 p.

Corrected phase-type approximations of heavy-tailed queueing models in a Markovian environment

Vatamidou, E., Adan, I. J. B. F., Vlasidou, M. & Zwart, A. P., 2014, *Proceedings of the 8th International Conference on Matrix-Analytic Methods in Stochastic Models (MAM8), Kerala, India, January 6-10, 2014*. s.l.: s.n., p. 113-141

Insensitivity of proportional fairness in critically loaded bandwidth sharing networks

Vlasidou, M., Zhang, J. & Zwart, B., 2014, s.n. 31 p. (arXiv.org; vol. 1411.4841 [math.PR])

Markovian polling systems with an application to wireless random-access networks

Dorsman, J. L., Borst, S. C., Boxma, O. J. & Vlasidou, M., 2014, Eindhoven: Eurandom. 21 p. (Report Eurandom; vol. 2014001)

On the accuracy of phase-type approximations of heavy-tailed risk models

Vatamidou, E., Adan, I. J. B. F., Vlasidou, M. & Zwart, A. P., 2014, In : Scandinavian Actuarial Journal. 2014, 6, p. 510-534 25 p.

Analysis of a two-layered network by means of the power-series algorithm

Dorsman, J. L., Mei, van der, R. D. & Vlasidou, M., 2013, In : Performance Evaluation. 70, 12, p. 1072-1089 18 p.

Analytic properties of two-carousel systems

Bossier, R., Vlasidou, M. & Adan, I. J. B. F., 2013, In : Probability in the Engineering and Informational Sciences. 27, 1, p. 57-84

Corrected phase-type approximations for the workload of the MAP/G/1 queue with heavy-tailed service times

Vatamidou, E., Adan, I. J. B. F., Vlasidou, M. & Zwart, B., 2013, *31st International Symposium on Computer Performance, Modeling, Measurements and Evaluation (IFIP WG 7.3 Performance 2013), Vienna, Austria, September 24-26, 2013*. New York: Association for Computing Machinery, Inc, p. 53-55 (ACM SIGMETRICS Performance Evaluation Review; vol. 41, no. 2).

Corrected phase-type approximations for the workload of the MAP/G/1 queue with heavy-tailed service times

Vatamidou, E., Adan, I. J. B. F., Vlasidou, M. & Zwart, A. P., 2013.

Corrected phase-type approximations for the workload of the MAP/G/1 queue with heavy-tailed service times

Vatamidou, E., Adan, I. J. B. F., Vlasidou, M. & Zwart, A. P., 2013. 1 p.

Corrected phase-type approximations of heavy-tailed risk models using perturbation analysis

Vatamidou, E., Adan, I. J. B. F., Vlasidou, M. & Zwart, B., 2013, Eindhoven: Eurandom. 20 p. (Report Eurandom; vol. 2013001)

Corrected phase-type approximations of heavy-tailed risk models using perturbation analysis

Vatamidou, E., Adan, I. J. B. F., Vlasidou, M. & Zwart, B., 2013, In : *Insurance: Mathematics and Economics*. 53, 2, p. 366-378

Cyclic-type polling models with preparation times

Perel, N., Dorsman, J. L. & Vlasidou, M., 2013, Eindhoven: Eurandom. 10 p. (Report Eurandom; vol. 2013003)

Cyclic-type polling models with preparation times

Perel, N., Dorsman, J. L. & Vlasidou, M., 2013, *Proceedings of the 2nd International Conference on Operations Research and Enterprise Systems (ICORES 2013, Barcelona, Spain, February 16-18, 2013)*. INSTICC Press, p. 14-23

Heavy-traffic asymptotics for networks of parallel queues with Markov-modulated service speeds

Dorsman, J. L., Vlasidou, M. & Zwart, B., 2013, Eindhoven: Eurandom. 22 p. (Report Eurandom; vol. 2013005)

Marginal queue length approximations for a two-layered network with correlated queues

Dorsman, J. L., Boxma, O. J. & Vlasidou, M., 2013, In : *Queueing Systems: Theory and Applications*. 75, 1, p. 29-63 35 p.

Parallel queueing networks with Markov-modulated service speeds in heavy traffic

Dorsman, J. L., Vlasidou, M. & Zwart, B., 2013, *31st International Symposium on Computer Performance, Modeling, Measurements and Evaluation (IFIP WG 7.3 Performance 2013, Vienna, Austria, September 24-26, 2013)*. New York: Association for Computing Machinery, Inc, p. 47-49 (ACM SIGMETRICS Performance Evaluation Review; vol. 41).

Server waiting times in infinite supply polling systems with preparation times

Dorsman, J. L., Perel, N. & Vlasidou, M., 2013, Eindhoven: Eurandom. 24 p. (Report Eurandom; vol. 2013018)

Analysis of a two-layered network with correlated queues by means of the power-series algorithm

Dorsman, J. L., Mei, van der, R. D. & Vlasidou, M., 2012, Eindhoven: Eurandom. 21 p. (Report Eurandom; vol. 2012005)

Dynamic server assignment in an extended machine-repair model

Dorsman, J. L., Bhulai, S. & Vlasidou, M., 2012, Eindhoven: Eurandom. 24 p. (Report Eurandom; vol. 2012020)

On the accuracy of phase-type approximations of heavy-tailed risk models

Vatamidou, E., Adan, I. J. B. F., Vlasidou, M. & Zwart, A. P., 2012, Eindhoven: Eurandom. 24 p. (Report Eurandom; vol. 2012010)

Separation of timescales in a two-layered network

Vlasidou, M., Zhang, J., Zwart, B. & Mei, van der, R. D., 2012, *Proceedings of the 24th International Teletraffic Congress (ITC 2012, Krakow, Poland, September 4-7, 2012)*. p. 185-192

A Lévy input fluid queue with input and workload regulation

Palmowski, Z. B., Vlasiou, M. & Zwart, B., 2011, Eindhoven: Eurandom. 17 p. (Report Eurandom; vol. 2011033)

A Lévy input model with additional state-dependent services

Palmowski, Z. B. & Vlasiou, M., 2011, In : Stochastic Processes and their Applications. 121, 7, p. 1546-1564

Analytic properties of two-carousel systems

Bossier, R., Vlasiou, M. & Adan, I. J. B. F., 2011, Eindhoven: Eurandom. 28 p. (Report Eurandom; vol. 2011031)

Marginal queue length approximations for a two-layered network with correlated queues

Dorsman, J. L., Vlasiou, M. & Boxma, O. J., 2011, Eindhoven: Eurandom. (Report Eurandom; vol. 2011043)

Regenerative processes

Vlasiou, M., 2011, *Wiley encyclopedia of operations research and management science*. Cochran, J. J., Cox, L. A., Keskinocak, P., Kharoufeh, J. P. & Smith, J. C. (eds.). Hoboken: Wiley, p. 1-6

Renewal processes with costs and rewards

Vlasiou, M., 2011, *Wiley encyclopedia of operations research and management science*. Cochran, J. J., Cox, L. A., Keskinocak, P., Kharoufeh, J. P. & Smith, J. C. (eds.). Hoboken: Wiley, p. 1-6

Separation of timescales in a two-layered network

Vlasiou, M., Zhang, J., Zwart, B. & Mei, van der, R. D., 2011, Eindhoven: Eurandom. 9 p. (Report Eurandom; vol. 2011032)

Tail asymptotics for a random sign Lindley recursion

Vlasiou, M. & Palmowski, Z., 1 Jan 2010, In : Journal of Applied Probability. 47, 1, p. 72-83 12 p.

A survey on performance analysis of warehouse carousel systems

Litvak, N. & Vlasiou, M., 2010, In : Statistica Neerlandica. 64, p. 401-447

A Lévy input model with additional state-dependent services

Palmowski, Z. B. & Vlasiou, M., 2009, Eindhoven: Eurandom. 17 p. (Report Eurandom; vol. 2009002)

A survey on performance analysis of warehouse carousel systems

Litvak, N. & Vlasiou, M., 2009, Eindhoven: Eurandom. 42 p. (Report Eurandom; vol. 2009040)

A two-station queue with dependent preparation and service times

Vlasiou, M., Adan, I. J. B. F. & Boxma, O. J., 2009, In : European Journal of Operational Research. 195, 1, p. 104-116 13 p.

Large deviations for a random sign Lindley recursion

Vlasiou, M. & Palmowski, Z. B., 2009, Eindhoven: Eurandom. 13 p. (Report Eurandom; vol. 2009003)

A course on queueing models (Book review)

Vlasiou, M., 2008, In : Journal of the American Statistical Association. 103, 481, p. 429-430

A survey on performance analysis of warehouse carousel systems

Litvak, N. & Vlasiou, M., 2008, Enschede: Twente University. (Memorandum Department of Applied Mathematics; vol. 1864)

Large deviations for a random sign Lindley recursion

Vlasiou, M. & Palmowski, Z. B., 2008, s.n. 13 p. (arXiv.org [math.PR]; vol. 0808.3495)

M/G/∞ polling systems with random visit times

Vlasiou, M. & Yechiali, U., 2008, In : Probability in the Engineering and Informational Sciences. 22, 1, p. 81-105 25 p.

 $M/G/\infty$ polling systems with random visit times

Vlasiou, M. & Yechiali, U., 2007, Eindhoven: Eurandom. 18 p. (Report Eurandom; vol. 2007007)

A multi-station queue with dependent interarrival and service times

Vlasiou, M., Adan, I. J. B. F. & Boxma, O. J., 2007, *Book of Abstracts of the 14th INFORMS Applied Probability Conference, 9-11 July 2007, Eindhoven, The Netherlands*. Eindhoven: Eurandom & TU/e, p. 161-

A non-increasing Lindley-type equation

Vlasiou, M., 2007, In : Queueing Systems: Theory and Applications. 56, 1, p. 41-52

A two-station queue with dependent preparation and service times

Vlasiou, M., Adan, I. J. B. F. & Boxma, O. J., 2007, Eindhoven: Eurandom. 18 p. (Report Eurandom; vol. 2007047)

Exact solution to a Lindley-type equation on a bounded support

Vlasiou, M. & Adan, I. J. B. F., 2007, In : Operations Research Letters. 35, 1, p. 105-113

On queues with service and interarrival times depending on waiting times

Boxma, O. J. & Vlasiou, M., 2007, In : Queueing Systems: Theory and Applications. 56, 3-4, p. 121-132

Time-dependent behaviour of an alternating service queue

Vlasiou, M. & Zwart, B., 2007, In : Stochastic Models. 23, 2, p. 235-263

Lindley-type recursions

Vlasiou, M., 2006, Eindhoven: Technische Universiteit Eindhoven. 187 p.

On queues with service and interarrival times depending on waiting times

Vlasiou, M. & Boxma, O. J., 2006, Eindhoven: Eurandom. 17 p. (Report Eurandom; vol. 2006008)

A non-increasing Lindley-type equation

Vlasiou, M., 2005, Eindhoven: Eurandom. 17 p. (Report Eurandom; vol. 2005015)

An alternating service problem

Vlasiou, M. & Adan, I. J. B. F., 2005, In : Probability in the Engineering and Informational Sciences. 19, 4, p. 409-426

Exact solution to a Lindley-type equation on a bounded support

Vlasiou, M. & Adan, I. J. B. F., 2005, Eindhoven: Eurandom. 9 p. (Report Eurandom; vol. 2005032)

Time-dependent behaviour of an alternating service queue

Vlasiou, M. & Zwart, B., 2005, Eindhoven: Eurandom. 22 p. (Report Eurandom; vol. 2005061)

A Lindley-type equation arising from a carousel problem

Vlasiou, M., Adan, I. J. B. F. & Wessels, J., 2004, In : Journal of Applied Probability. 41, 4, p. 1171-1181

A Lindley-type equation arising from a carousel problem

Vlasiou, M., Adan, I. J. B. F. & Wessels, J., 2004, Eindhoven: Eurandom. 11 p. (Report Eurandom; vol. 2004026)

An alternating service problem

Adan, I. J. B. F. & Vlasiou, M., 2004, Eindhoven: Eurandom. 16 p. (Report Eurandom; vol. 2004033)

Throughput analysis of two carousels

Vlasiou, M., Adan, I. J. B. F., Boxma, O. J. & Wessels, J., 2003, Eindhoven: Eurandom. 11 p. (Report Eurandom; vol. 2003037)

Projects

Activities

Simons Institute for the Theory of Computing

Maria Vlasiou (Visiting researcher)

30 Oct 2017 → 31 Dec 2017

Heavy-traffic approximations for a layered network with limited resources

Maria Vlasiou (Speaker)

11 Jul 2017

Lorenz Center (External organisation)

Maria Vlasiou (Member)

4 May 2017 → May 2020

Error bounds and approximations for heavy-tailed stochastic systems

Maria Vlasiou (Speaker)

6 Apr 2017

Australian Mathematical Sciences Institute (AMSI)

Maria Vlasiou (Visiting lecturer)

13 Feb 2017 → 22 Feb 2017

IISE Transactions (Journal)

Maria Vlasiou (Editorial board member)

1 Feb 2017 → ...

53th ANZIAM conference (Australia and New Zealand Industrial and Applied Mathematics)

Maria Vlasiou (Participant)

Feb 2017

Error bounds and approximations for heavy-tailed stochastic systems

Maria Vlasiou (Keynote speaker)

Feb 2017

Heavy-traffic limits for layered queuing networks

Maria Vlasiou (Invited speaker)

Feb 2017

conference; INFORMS Annual Meeting

Maria Vlasiou (Member of programme committee)

2017

conference; INFORMS Annual Meeting

Maria Vlasίου (Chair)
2017

conference; INFORMS Annual Meeting

Maria Vlasίου (Participant)
2017

INFORMS Applied Probability Society conference

Maria Vlasίου (Member of programme committee)
2017

INFORMS Applied Probability Society conference

Maria Vlasίου (Chair)
2017

INFORMS Applied Probability Society conference

Maria Vlasίου (Participant)
2017

Layered and interacting queues

Maria Vlasίου (Invited speaker)
2017

Queues on interacting networks

Maria Vlasίου (Speaker)
2017

Queues on interacting networks

Maria Vlasίου (Speaker)
2017

Queues on interacting networks

Maria Vlasίου (Speaker)
2017

6th International Conference on Operations Research and Enterprise Systems (ICORES 2017)

Maria Vlasίου (Member of programme committee)
11 Feb 2016 → 25 Feb 2017

Mathematical Methods of Operations Research (Journal)

Maria Vlasίου (Editorial board member)
15 Jan 2016 → ...

Asymptotic error bounds for truncated buffer approximations of a 2-node tandem queue

Maria Vlasίου (Speaker)
2016

University of Twente (External organisation)

Maria Vlasίου (Member)
2016 → ...

5th International Conference on Operations Research and Enterprise Systems (ICORES 2016)

Maria Vlasίου (Member of programme committee)
1 Mar 2015 → 25 Feb 2016

Speaker

Maria Vlasίου (Speaker)
1 Jul 2014 → ...

Wroclaw University of Science and Technology

Maria Vlasίου (Visiting researcher)
1 Jul 2013 → 21 Jul 2013

Hong Kong University of Science and Technology

Maria Vlasίου (Visiting researcher)
2 Mar 2013 → 31 Mar 2013

3rd International Conference on Operations Research and Enterprise Systems (ICORES 2014)

Maria Vlasίου (Member of programme committee)
1 Mar 2013 → 8 Mar 2014

4th International Conference on Operations Research and Enterprise Systems (ICORES 2015)

Maria Vlasίου (Member of programme committee)
1 Mar 2013 → 12 Jan 2015

2nd International Conference on Operations Research and Enterprise Systems (ICORES 2013), February 16-18, 2013, Barcelona, Spain

Maria Vlasίου (Speaker)
16 Feb 2013

Hong Kong University of Science and Technology

Maria Vlasίου (Visiting researcher)
8 Feb 2012 → 9 Mar 2013

Applied and Computational Mathematics (Journal)

Maria Vlasίου (Editorial board member)
2012 → 2014

Academic Leadership for Assistant Professors

Maria Vlasίου (Recipient)
1 Sep 2011 → 15 Jan 2012

Analytic properties of picking strategies in carousels

Maria Vlasίου (Speaker)
May 2011

California Institute of Technology

Maria Vlasίου (Visiting researcher)
1 Mar 2011 → 21 Mar 2011

BETA conference: Operations Management on the move

Maria Vlasίου (Organiser)
2 Nov 2010 → 3 Nov 2010

Tel Aviv University

Maria Vlasίου (Visiting researcher)
19 May 2010 → 5 Jun 2010

Isaac Newton Institute for Mathematical Sciences

Maria Vlasiou (Visiting researcher)

4 May 2010 → 19 May 2010

Wroclaw University of Science and Technology

Maria Vlasiou (Visiting researcher)

16 Apr 2010 → 30 Apr 2010

Isaac Newton Institute for Mathematical Sciences

Maria Vlasiou (Visiting researcher)

1 Mar 2010 → 28 Mar 2010

University Teaching Qualification

Maria Vlasiou (Recipient)

1 Jan 2010

Making Healthcare Processes Work

Maria Vlasiou (Organiser)

1 Oct 2009 → 26 Feb 2010

Columbia University

Maria Vlasiou (Visiting researcher)

4 Jul 2009 → 11 Jul 2009

A Levy input model with additional state-dependent services

Maria Vlasiou (Invited speaker)

17 May 2009

Wroclaw University of Science and Technology

Maria Vlasiou (Visiting researcher)

8 May 2009 → 29 May 2009

Georgia Institute of Technology

Maria Vlasiou (Visiting researcher)

21 Feb 2009 → 2 Mar 2009

Wroclaw University of Science and Technology

Maria Vlasiou (Visiting researcher)

19 Apr 2008 → 25 Jun 2008

Duke University

Maria Vlasiou (Visiting researcher)

20 Feb 2007 → 24 Feb 2007

University of Twente

Maria Vlasiou (Visiting researcher)

26 Sep 2006 → 9 Oct 2006

Indian Statistical Institute

Maria Vlasiou (Visiting researcher)

25 May 2006 → 6 Jun 2006