Maria Vlasiou  
Associate Professor  
Stochastics W&I  
Stochastic Operations Research  
Stochastics W&I  
Email: m.vlasiou@tue.nl

Heavy-traffic approximations for a layered network with limited resources  

A stochastic resource-sharing network for electric vehicle charging  

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

Electric vehicle charging: A queueing approach  

Server waiting times in infinite supply polling systems with preparation times  

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

Dynamic server assignment in an extended machine-repair model  

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

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

A Lévy input fluid queue with input and workload regulation  

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

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

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

Insensitivitvity of proportional fairness in critically loaded bandwidth sharing networks
Vlasiou, 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

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

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

Analytic properties of two-carousel systems

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

Cyclic-type polling models with preparation times

Heavy-traffic asymptotics for networks of parallel queues with Markov-modulated service speeds
Marginal queue length approximations for a two-layered network with correlated queues

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

Server waiting times in infinite supply polling systems with preparation times

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

Dynamic server assignment in an extended machine-repair model

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

Separation of timescales in a two-layered network

A Lévy input fluid queue with input and workload regulation

A Lévy input model with additional state-dependent services

Analytic properties of two-carousel systems

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

Regenerative processes

Renewal processes with costs and rewards

Separation of timescales in a two-layered network

Tail asymptotics for a random sign Lindley recursion
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

A survey on performance analysis of warehouse carousel systems

A two-station queue with dependent preparation and service times

Large deviations for a random sign Lindley recursion

A course on queuing models (Book review)

A survey on performance analysis of warehouse carousel systems
Litvak, N. & Vlasiou, M., 2008, Enschede: University of Twente. (Memorandum Department of Applied Mathematics; vol. 1864)

Large deviations for a random sign Lindley recursion

M/G/∞ polling systems with random visit times

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

A multi-station queue with dependent interarrival and service times

A non-increasing Lindley-type equation

A two-station queue with dependent preparation and service times

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

On queues with service and interarrival times depending on waiting times

Time-dependent behaviour of an alternating service queue
Lindley-type recursions

On queues with service and interarrival times depending on waiting times

A non-increasing Lindley-type equation

An alternating service problem

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

Time-dependent behaviour of an alternating service queue

A Lindley-type equation arising from a carousel problem

A Lindley-type equation arising from a carousel problem

An alternating service problem

Throughput analysis of two carousels

Projects

Activities

Simons Institute for the Theory of Computing
Vlasiou, M. (Visiting researcher)
30 Oct 2017 → 31 Dec 2017

Heavy-traffic approximations for a layered network with limited resources
Vlasiou, M. (Speaker)
11 Jul 2017

Lorenz Center (External organisation)
Vlasiou, M. (Member)
4 May 2017 → May 2020

Error bounds and approximations for heavy-tailed stochastic systems
Vlasiou, M. (Speaker)
6 Apr 2017
Australian Mathematical Sciences Institute (AMSI)
Vlasiou, M. (Visiting lecturer)
13 Feb 2017 → 22 Feb 2017

IISE Transactions (Journal)
Vlasiou, M. (Editorial board member)
1 Feb 2017 → ...

53th ANZIAM conference (Australia and New Zealand Industrial and Applied Mathematics)
Vlasiou, M. (Participant)
Feb 2017

Error bounds and approximations for heavy-tailed stochastic systems
Vlasiou, M. (Keynote speaker)
Feb 2017

Heavy-traffic limits for layered queuing networks
Vlasiou, M. (Invited speaker)
Feb 2017

conference; INFORMS Annual Meeting
Vlasiou, M. (Member of programme committee)
2017

conference; INFORMS Annual Meeting
Vlasiou, M. (Chair)
2017

conference; INFORMS Annual Meeting
Vlasiou, M. (Participant)
2017

INFORMS Applied Probability Society conference
Vlasiou, M. (Member of programme committee)
2017

INFORMS Applied Probability Society conference
Vlasiou, M. (Chair)
2017

INFORMS Applied Probability Society conference
Vlasiou, M. (Participant)
2017

Layered and interacting queues
Vlasiou, M. (Invited speaker)
2017

Queues on interacting networks
Vlasiou, M. (Speaker)
2017
Queues on interacting networks
Vlasiou, M. (Speaker)
2017

Queues on interacting networks
Vlasiou, M. (Speaker)
2017

Vlasiou, M. (Member of programme committee)
11 Feb 2016 → 25 Feb 2017

Mathematical Methods of Operations Research (Journal)
Vlasiou, M. (Editorial board member)
15 Jan 2016 → …

Asymptotic error bounds for truncated buffer approximations of a 2-node tandem queue
Vlasiou, M. (Speaker)
2016

University of Twente (External organisation)
Vlasiou, M. (Member)
2016 → …

Vlasiou, M. (Member of programme committee)
1 Mar 2015 → 25 Feb 2016

Speaker
Vlasiou, M. (Speaker)
1 Jul 2014 → …

Wroclaw University of Science and Technology
Vlasiou, M. (Visiting researcher)
1 Jul 2013 → 21 Jul 2013

Hong Kong University of Science and Technology
Vlasiou, M. (Visiting researcher)
2 Mar 2013 → 31 Mar 2013

3rd International Conference on Operations Research and Enterprise Systems (ICORES 2014), March 6-8, 2014, Angers, France
Vlasiou, M. (Member of programme committee)
1 Mar 2013 → 8 Mar 2014

4th International Conference on Operations Research and Enterprise Systems (ICORES 2015), January 10-12, 2015, Lisbon, Portugal
Vlasiou, M. (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
Vlasiou, M. (Speaker)
16 Feb 2013
Hong Kong University of Science and Technology
Vlasiou, M. (Visiting researcher)
8 Feb 2012 → 9 Mar 2013

Applied and Computational Mathematics (Journal)
Vlasiou, M. (Editorial board member)
2012 → 2014

Academic Leadership for Assistant Professors
Vlasiou, M. (Recipient)
1 Sep 2011 → 15 Jan 2012

Analytic properties of picking strategies in carousels
Vlasiou, M. (Speaker)
May 2011

California Institute of Technology
Vlasiou, M. (Visiting researcher)
1 Mar 2011 → 21 Mar 2011

BETA conference: Operations Management on the move
Vlasiou, M. (Organiser)
2 Nov 2010 → 3 Nov 2010

Tel Aviv University
Vlasiou, M. (Visiting researcher)
19 May 2010 → 5 Jun 2010

Isaac Newton Institute for Mathematical Sciences
Vlasiou, M. (Visiting researcher)
4 May 2010 → 19 May 2010

Wroclaw University of Science and Technology
Vlasiou, M. (Visiting researcher)
16 Apr 2010 → 30 Apr 2010

Isaac Newton Institute for Mathematical Sciences
Vlasiou, M. (Visiting researcher)
1 Mar 2010 → 28 Mar 2010

University Teaching Qualification
Vlasiou, M. (Recipient)
1 Jan 2010

Making Healthcare Processes Work
Vlasiou, M. (Organiser)
1 Oct 2009 → 26 Feb 2010

Columbia University
Vlasiou, M. (Visiting researcher)
4 Jul 2009 → 11 Jul 2009
A Levy input model with additional state-dependent services
Vlasiou, M. (Invited speaker)
17 May 2009

Wroclaw University of Science and Technology
Vlasiou, M. (Visiting researcher)
8 May 2009 → 29 May 2009

Georgia Institute of Technology
Vlasiou, M. (Visiting researcher)
21 Feb 2009 → 2 Mar 2009

Wroclaw University of Science and Technology
Vlasiou, M. (Visiting researcher)
19 Apr 2008 → 25 Jun 2008

Duke University
Vlasiou, M. (Visiting researcher)
20 Feb 2007 → 24 Feb 2007

University of Twente
Vlasiou, M. (Visiting researcher)
26 Sep 2006 → 9 Oct 2006

Indian Statistical Institute
Vlasiou, M. (Visiting researcher)
25 May 2006 → 6 Jun 2006