

MONDAY 11/6/2012

WORKSHOPS – MORNING

GreenMetrics		W-PIN	
08:30	Registration opens		
09	Keynote	09:00 Challenges in multi-modal transport planning Jochen Mundinger	09:00 Economics, QoS, and charging in the next great telecom revolution Andrew Odlyzko
		308	311
10	Greener IT	10:00 Measuring Energy Consumption for Short Code Paths Using RAPL Marcus Hähnel, Björn Döbel, Marcus Völp, Hermann Härtig	10:00 Comparison of Search Engines Non-Neutral and Neutral Behaviors Pierre Coucheney, Patrick Maillé and Bruno Tuffin
		10:20 Empirical Evaluation of Power Saving Policies for Data Centers Michele Mazzucco, Isi Mitrani	Neutrality
		10:40 Evaluating the Need for Complexity in Energy-aware Management for Cloud Platforms Pooja Ghumre, Junwei Li, Mukil Kesavan, Ada Gavrilovska, Karsten Schwan	
		308	311
11	11:00 Break		
			344
12	Invited Talks	11:30 Stochastic Analysis of Real and Virtual Energy Storage in the Smart Grid Jean-Yves Le Boudec	11:30 Guaranteeing User Welfare in Network Service: Comparison of Two Subsidy Schemes Seung Min Yu and Seong-Lyun Kim
		12:15 Branch Flow Model: Relaxations, Convexification, Computation Steven Low	12:00 Newsvendor Model Of Capacity Sharing Randall Berry, Michael Honig, Thanh Nguyen, Vijay Subramanian, Hang Zhou and Rakesh Vohra
		308	311
13	13:00 – 14:00 Lunch Break		
			344

MONDAY 11/6/2012

TUTORIALS – MORNING

SIGMETRICS Tutorials

SIGMETRICS Tutorials

08:30

Registration opens

09

10

09:30 **Micro and macro views of discrete state Markov models and their application to efficient simulation with Phase-type distributions Part 1**

Philipp Reinecke, Miklós Telek and Katinka Wolter

145

09:30 **PoTrA: A framework for Building Power Models For Next Generation Multicore Architectures Part 1**

Ramon Bertran and Marc Gonzalez

343

11

11:00

Break

344

12

11:30 **Micro and macro views of discrete state Markov models and their application to efficient simulation with Phase-type distributions Part 2**

Philipp Reinecke, Miklós Telek and Katinka Wolter

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11:30 **PoTrA: A framework for Building Power Models For Next Generation Multicore Architectures Part 2**

Ramon Bertran and Marc Gonzalez

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13:00 – 14:00

Lunch Break

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MONDAY 11/6/2012

WORKSHOPS – AFTERNOON

	GreenMetrics	W-PIN
14		
15	<div>Invited Talks</div> <div> <p>14:30 Evaluation of the Impacts of Geographically-Correlated Failures on Power Grids Gil Zussman</p> <p>15:15 Real-time distributed control of electrical vehicle charging Catherine Rosenberg</p> </div>	<div>Keynote</div> <div> <p>14:00 Unbundling the incumbent: Evidence from UK broadband Tommaso Valletti</p> </div> <div>Transit and Peering</div> <div> <p>15:00 The price of tussles: bankrupt in cyberspace? Zied Ben Houidi and Hélia Pouyllau</p> <p>15:30 Peering Strategy adoption by Transit Providers in the Internet: A Game Theoretic approach Aamen Lodhi, Amogh Dhamdhere and Constantine Dovrolis</p> </div>
16	<div>16:00</div> <div>Break</div>	
17	<div>Smarter Grids</div> <div> <p>16:30 On the Impact of Storage in Residential Power Distribution Systems Omid Ardakanian, Catherine Rosenberg, S. Keshav</p> <p>16:50 Electric Grid Balancing through Low-Cost Workload Migration David Chiu, Christopher Stewart, Bart McManus</p> <p>17:10 Survivability Analysis of Distribution Automation Networks with Reactive Power Compensation D. S. Menasche, R. M. M. Leao, E. de Souza e Silva, A. Avritzer, S. Suresh, K. S. Trivedi, R. Marie, L. Happe, A. Koziolk</p> </div>	<div>Infrastructure and Network Formation</div> <div> <p>16:30 Pricing of insurance policies against cloud storage price rises Loretta Mastroeni and Maurizio Naldi</p> <p>17:00 ISP vs. ISP+CDN: Can ISPs in Duopoly Profit by Introducing CDN Services? Dongmyung Lee, Jeonghoon Mo and Jinwoo Park</p> <p>17:30 On Greedy Network Formation András Gulyás, Attila Körösi, Dávid Szabó and Gergely Biczók</p> </div>
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MONDAY 11/6/2012

TUTORIALS – AFTERNOON

SIGMETRICS Tutorials

SIGMETRICS Tutorials

14:30 **Basic Theory and some Applications of Martingales Part 1**
Richard A. Hayden

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14:30 **Applications of Machine Learning to Performance Evaluation**
by Edmundo de Souza e Silva and Daniel Sadoc Menasche

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16:00
Break

344

16:30 **Basic Theory and some Applications of Martingales Part 2**
Richard A. Hayden

145

16:30 **Introduction to Network Experiments using the GENI CyberInfrastructure**
Jay Aikat and Kevin Jeffay

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18:00
Student Poster Session Set Up

Physics Common Room

18:30 – 21:00
Student Poster Session and Main Conference Opening Reception

Physics Common Room

TUESDAY 12/6/2012

SIGMETRICS

08	07:45	Registration opens	
	08:30	Opening Remarks	308
09	Keynote	08:45 Performance Implications of Flash and Storage Class Memories Naresh Patel	308
10	Scheduling & Load Balancing I	09:45 Delay Tails in MapReduce Scheduling Jian Tan, Xiaoqiao Meng and Li Zhang	
		10:15 Optimal Queue-Size Scaling in Switched Networks Devavrat Shah, Neil Walton and Yuan Zhong	308
11	10:45	Break	344
	Scheduling & Load Balancing II	11:15 Minimizing Slowdown in Heterogeneous Size-Aware Dispatching Systems Esa Hyttiä, Samuli Aalto and Aleksi Penttinen	
12		11:45 Bipartite Graph Structures for Efficient Balancing of Heterogeneous Loads Mathieu Leconte, Marc Lelarge and Laurent Massoulié	308
13	12:15	Lunch Break	344
14	Characterization	13:30 Workload Analysis of a Large-Scale Key-Value Store Berk Atikoglu, Yuehai Xu, Eitan Frachtenberg, Song Jiang and Mike Paleczny	
		14:00 A First Look at Cellular Machine-to-Machine Traffic – Large Scale Measurement and Characterization Muhammad Zubair Shafiq, Lusheng Ji, Alex X. Liu, Jeffrey Pang and Jia Wang	
15		14:30 Bundling Practice in BitTorrent: What, How, and Why Jinyoung Han, Seungbae Kim, Taejoong Chung, Ted T. Kwon, Hyun-chul Kim and Yanghee Choi	308
	15:00	Break	344
16	Networking	15:30 Energy-Efficient Congestion Control Lingwen Gan, Anwar Walid and Steven Low	
		16:00 Uniform Approximation of the Distribution for the Number of Retransmissions of Bounded Documents Predrag Jelenkovic and Evangelia D. Skiani	
17		16:30 Fluid Limit of an Asynchronous Optical Packet Switch with Shared per Link Full Range Wavelength Conversion Benny Van Houdt and Luca Bortolussi	
		17:00 Towards Optimal Error-Estimating Codes through the Lens of Fisher Information Analysis Nan Hua, Ashwin Lall, Baochun Li and Jun Xu	308
18	18:00	Poster Session Set Up	Physics Common Room
	18:30 – 21:00	Main Conference Poster Session	Physics Common Room

08	08:00	Registration opens	
09	Award Lecture	08:30 SIGMETRICS Achievement Award Winner's Lecture Debasis Mitra	308
10	Pricing	09:30 How Well Can Congestion Pricing Neutralize Denial of Service Attacks? Ashish Vulimiri, Philip B. Godfrey, Karthik Lakshminarayanan and Gul A. Agha	
		10:00 Pricing Cloud Bandwidth Reservations under Demand Uncertainty Di Niu, Chen Feng and Baochun Li	308
11	10:30	Break	344
12	Green Data Centers	11:00 Temperature Management in Data Centers: Why Some (Might) Like It Hot Nosayba El-Sayed, Ioan A. Stefanovici, George Amvrosiadis, Andy A. Hwang and Bianca Schroeder	
		11:30 Renewable and Cooling Aware Workload Management for Sustainable Data Centers Z. Liu, Y. Chen, C. Bash, A. Wierman, D. Gmach, Z. Wang, M. Marwah and C. Hyser	
		12:00 Energy Storage in Datacenters: What, Where, and How much? Di Wang, Chuangang Ren, Anand Sivasubramaniam, Bhuvan Urgaonkar and Hosam Fathy	308
13	12:30	Lunch Break	344
14	Keynote	13:30 High-Performance Computing in Mobile Services Zhen Liu	308
15	Epidemics	14:30 Rumor Centrality: A Universal Source Detector Devavrat Shah and Tauhid Zaman	
		15:00 Learning the Graph of Epidemic Cascades Praneeth Netrapalli and Sujay Sanghavi	
16		15:30 Network Forensics: Random Infection vs Spreading Epidemic Chris Milling, Constantine Caramanis, Shie Mannor and Sanjay Shakkottai	308
17	Memory and Storage	16:15 What is a Good Buffer Cache Replacement Scheme for Mobile Flash Storage? Hyojun Kim, Moonkyung Ryu and Umakishore Ramachandran	
		16:45 Versatile Refresh: Low Complexity Refresh Scheduling for High-throughput Multi-banked eDRAM Mohammad Alizadeh, Adel Javanmard, Shang-Tse Chuang, Sundar Iyer and Yi Lu	308
18	17:45	Travel to Banquet on London Routemaster bus	Queen's Gate Entrance
19	18:45 – 22:45	Banquet	Westminster Pier

THURSDAY 14/6/2012

SIGMETRICS

08		
	08:30	Registration opens
09	Award Lecture	09:00 SIGMETRICS Rising Star Award Winner's Lecture Winner TBA
10		308
	System Performance I	10:00 Does Lean Imply Green? A Study of the Power Performance Implications of Java Runtime Bloat Suparna Bhattacharya, Karthick Rajamani, K. Gopinath and Manish Gupta
11		10:30 D-Factor: A Quantitative Model of Application Slow-Down in Multi-Resource Shared Systems Seung-Hwan Lim, Jae-Seok Huh, Youngjae Kim, Galen M. Shipman and Chita R. Das
		308
	11:00	Break
		344
	System Performance II	11:30 ADP: Automated Diagnosis of Performance Pathologies Using Hardware Events Wucherl Yoo, Kevin Larson, Lee Baugh, Sangkyum Kim and Roy H. Campbell
12		12:00 Providing Fairness on Shared-Memory Multiprocessors via Process Scheduling Di Xu, Chenggang Wu, Pen-Chung Yew, Jianjun Li and Zhenjiang Wang
		308
	12:30	Lunch Break
		344
	Graphs	13:30 Characterizing Continuous Time Random Walks on Time Varying Graphs Daniel Figueiredo, Philippe Nain, Bruno Ribeiro, Edmundo de Souza e Silva and Don Towsley
14		14:00 Beyond Random Walk and Metropolis-Hastings Samplers Chul-Ho Lee, Xin Xu and Do Young Eun
		14:30 Clustered Embedding of Massive Social Networks H. H. Song, B. Savas, T. W. Cho, V. Dave, Z. Lu, I. S. Dhillon, Y. Zhang and L. Qiu
15		308
	15:00	Break
		344
	Sampling and Ranking	15:30 Don't Let The Negatives Bring You Down: Sampling from Streams of Signed Updates Edith Cohen, Graham Cormode and Nick Duffield
16		16:00 Efficient Rank Aggregation Using Partial Data Ammar Ammar and Devavrat Shah
		16:30 Fair Sampling Across Network Flow Measurements Nick Duffield
17		308
	17:00	Closing remarks
		308
	17:30	Industrial Fair
18		
19		308

FRIDAY 15/6/2012 WORKSHOPS

	MAMA	NetFPGA
08	08:00 Registration opens	
09	08:30 Uptime and Downtime Analysis for Hierarchical Redundant Systems in Telecommunications E.G. Coffman, Jr., Y. Kogan, W. Lai, V. Ramaswami	
	09:00 Optimal Congestion Control of TCP Flows for Internet Routers K. Avrachenkov, U. Ayesta, J. Doncel, P. Jacko	09:00
10	09:30 Temporal Load Balancing for Distributed Backup Scheduling A. Schorgendorfer, P.M. van de Ven, B. Zhang	NetFPGA
	10:00 Efficient Replication in Multi-Regional Peer-Supported VoD Systems Y. Rochman, H. Levy, E. Brosh 311	343
	10:30 Break 344	
11	11:00 Pricing and Queueing C. Borgs, J.T. Chayes, S. Doroudi, M. Harchol-Balter, K. Xu	11:00
	11:30 Stochastic Bounds for Randomized Load Balancing A.S. Godtschalk, F. Ciucu	NetFPGA
12	12:00 Estimating Queue Length Distributions for Queues with Random Arrivals D.S. Myers, M.K. Vernon 311	343
13	12:30 Lunch Break 344	
14	13:30 Modeling Response Times in the Google ROADEF/EURO Challenge P. Cremonesi, A. Sansottera	13:30
	14:00 Provisioning for Large Scale Loss Network Systems with Applications in Cloud Computing Y. Tan, Y. Lu, C.H. Xia	NetFPGA
15	14:30 Cyber-Insurance for Cyber-Security: A Topological Take on Modulating Insurance Premiums R. Pal, P. Hui 311	343
	15:00 Break 344	
16	15:30 Meeting the Fairness Deadline in Speed Scaling Systems: Is Turbocharging Enough? M. Elahi, C. Williamson, P. Woelfel	15:30
	16:00 Analysis of the Large Number of Hosts Asymptotics of SITA Queues E. Bachmat, A. Natanzon	NetFPGA
17	16:30 Rate-Optimal Scheduling Schemes for Asynchronous Input-Queued Packet Switches T. Bonald, D. Cuda	343
	17:00 Online Optimization with Switching Cost M. Lin, A. Wierman, A. Roytman, A. Meyerson, L.L.H. Andrew 311	
	17:30 Short Break 344	
18	17:45 Far-Out Vertices in Weighted Repeated Configuration Model B. Blaszczyzyn, K. Gaurav	
	18:15 Replaying the Geometric Growth of Complex Networks and Application to the AS Internet F. Papadopoulos, C. Psomas, D. Krioukov	
19	18:45 Network Criticality in Vehicular Networks A. Tizghadam, W. Li, A. Leon-Garcia 311	

FRIDAY 15/6/212 WORKSHOPS

08	08:00	Registration opens	
09	Keynote	09:00 Dealing with the digital dilemma – Dodging digital exhaust while delivering trust Malcolm Crompton	308
10	Session I	09:45 Two New Economic Models for Privacy Shah Mahmood, Yvo Desmedt	
		10:07 An architecture for ethical and privacy-sensitive social network experiments Luke Hutton, Tristan Henderson	308
11	10:30	Break	344
12	Keynote	11:00 Addressing the privacy management crisis in online social networks Krishna P. Gummadi	308
	Session II	11:45 On the Privacy Risks of Linking Complementary Information from Free Versions of People Databases Minaxi Gupta, Yuqing Wu, Swapnil S. Joshi, Aparna Tiwari, Ashish Nair, Ezhilan Ilangoan	
		12:07 How (not) to Build a Transport Layer for Anonymity Overlays Florian Tschorsch, Bjorn Scheuermann	308
13	12:30	Lunch Break	344