## Conference Schedule

<table>
<thead>
<tr>
<th>Monday, June 13, 2011</th>
<th>Tuesday, June 14, 2011</th>
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<tbody>
<tr>
<td>08:00 -- 08:45 Continental Breakfast</td>
<td>08:00 -- 09:00 Continental Breakfast</td>
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<tr>
<td>08:45 -- 09:00 Opening Remarks</td>
<td>09:00 -- 10:00 Plenary: S. Kou</td>
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<tr>
<td>09:00 -- 10:00 Plenary: E. Coffman</td>
<td>10:00 -- 10:30 Coffee/Tea</td>
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<tr>
<td>10:00 -- 10:30 Coffee/Tea</td>
<td>10:30 -- 12:30 Session 4 (4 Talks)</td>
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<tr>
<td>10:30 -- 12:30 Session 1 (4 Talks)</td>
<td>12:30 -- 02:00 Lunch</td>
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<tr>
<td>12:30 -- 02:00 Lunch</td>
<td>02:00 -- 04:00 Session 5 (4 Talks)</td>
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<tr>
<td>02:00 -- 04:00 Session 2 (4 Talks)</td>
<td>04:00 -- 04:30 Coffee/Tea</td>
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<tr>
<td>04:00 -- 04:30 Coffee/Tea</td>
<td>04:30 -- 06:30 Session 6 (4 Talks)</td>
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<tr>
<td>04:30 -- 06:30 Session 3 (4 Talks)</td>
<td>07:00 Conference Banquet</td>
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<tr>
<td>07:00 Conference Reception</td>
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<table>
<thead>
<tr>
<th>Wednesday, June 15, 2011</th>
<th>Thursday, June 16, 2011</th>
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<tbody>
<tr>
<td>08:00 -- 09:00 Continental Breakfast</td>
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<tr>
<td>09:00 -- 10:00 Plenary: D. Shah</td>
<td>09:00 -- 10:00 Session 8 (2 Talks)</td>
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<tr>
<td>10:00 -- 10:30 Coffee/Tea</td>
<td>10:00 -- 10:30 Coffee/Tea</td>
</tr>
<tr>
<td>10:30 -- 12:30 Session 7 (4 Talks)</td>
<td>10:30 -- 12:30 Session 9 (4 Talks)</td>
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<tr>
<td>12:30 -- 02:00 Lunch</td>
<td>12:30 -- 02:00 Lunch</td>
</tr>
<tr>
<td>03:30 -- 06:00 Excursion: Walking Tour of Central Park</td>
<td>02:00 -- 03:00 Tools Demo</td>
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<td>03:00 -- 04:00 Plenary: M. Neuts</td>
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<td></td>
<td>04:00 -- 04:30 Coffee</td>
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<td></td>
<td>04:30 -- 05:30 Business Meeting/Conclusion Session</td>
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### Plenary Talks

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Title</th>
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<tbody>
<tr>
<td>Ed Coffman, Columbia University</td>
<td>Synthesis of Local-Rule Processes: Success and Challenges</td>
</tr>
<tr>
<td>Steven Kou, Columbia University</td>
<td>First Passage Times and Option Pricing under a Mixed-Exponential Jump Diffusion Model</td>
</tr>
<tr>
<td>Devavrat Shah, MIT</td>
<td>Product-form Distributions and Network Algorithms</td>
</tr>
<tr>
<td>Marcel Neuts, University of Arizona</td>
<td>The Algorithmization of Mathematics: The Story of Stochastic Models</td>
</tr>
</tbody>
</table>
MAM7 June 13-16, 2011  Columbia University, NY, USA

DAY 1: Monday June 13, 2011

Session 1: Theory: QBD processes
Monday June 13, 2011, 10:30 AM -- 12:30 PM

<table>
<thead>
<tr>
<th>Authors</th>
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</thead>
<tbody>
<tr>
<td>S. Dendievel, G. Latouche, M.-A. Remiche</td>
<td>Stationary distribution of a perturbed QBD process</td>
</tr>
<tr>
<td>M. Kobayashi, M. Miyazawa</td>
<td>Revisit to the tail asymptotics of the double QBD process for refinement and complete solutions</td>
</tr>
<tr>
<td>F. Avram</td>
<td>Some questions on linear Quasi-Birth-and-Death processes</td>
</tr>
</tbody>
</table>

Session 2: Multi-Server Systems
Monday June 13, 2011, 2:00 PM -- 4:00 PM

<table>
<thead>
<tr>
<th>Authors</th>
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</thead>
<tbody>
<tr>
<td>J. Blanchet, J. Dong</td>
<td>Rare-Event Simulation for Multi-server Queues in the Halfin-Whitt Regime</td>
</tr>
<tr>
<td>M. Kobayashi, Y. Sakuma, M. Miyazawa</td>
<td>Tail asymptotics of the stationary distribution for M/M-ISQ with k parallel queues</td>
</tr>
<tr>
<td>Y. Liu, W. Whitt</td>
<td>A Fluid Model for Many-Server Queues with Time-Varying Arrivals and Phase-Type Service Distribution</td>
</tr>
<tr>
<td>G. Latouche, G.T. Nguyen, Z. Palmowski</td>
<td>Two-dimensional fluid queues with temporary assistance</td>
</tr>
</tbody>
</table>

Session 3: Matrix Exponentials and RAPs
Monday June 13, 2011, 4:30 PM -- 6:30 PM

<table>
<thead>
<tr>
<th>Authors</th>
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<tbody>
<tr>
<td>M. Bladt, B.F. Nielsen</td>
<td>An overview of multivariate gamma distributions as seen from a (multivariate) matrix exponential perspective</td>
</tr>
<tr>
<td>M. Fackrell</td>
<td>Characterizing Matrix-exponential Distributions of Order 4</td>
</tr>
<tr>
<td>M. Bladt, L.J.R. Esparza, B.F. Nielsen</td>
<td>Bilateral matrix-exponential distributions</td>
</tr>
<tr>
<td>G. Horvath, M. Telek</td>
<td>Acceptance-rejection methods for generating random variates from matrix exponential distributions and rational arrival processes</td>
</tr>
</tbody>
</table>
## Session 4: Numerical Analyses
**Tuesday June 14, 2011, 10:30 AM -- 12:30 PM**

<table>
<thead>
<tr>
<th>Authors</th>
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<tbody>
<tr>
<td>D. Bini, P. Favati, B. Meini</td>
<td>A compressed cyclic reduction for QBDs with low rank upper and lower transitions</td>
</tr>
<tr>
<td>B. Margolius</td>
<td>Numerical Study of Markovian Arrival Processes (MAP) with time-varying periodic arrival rates</td>
</tr>
<tr>
<td>J.G. Dai, S. He</td>
<td>Numerical Analysis for Diffusion Models of GI/Ph/n+GI Queues</td>
</tr>
<tr>
<td>S. Hautphenne</td>
<td>An EM algorithm for the model fitting of Markovian binary trees</td>
</tr>
</tbody>
</table>

## Session 5: Applications I
**Tuesday June 14, 2011, 2:00 PM -- 4:00 PM**

<table>
<thead>
<tr>
<th>Authors</th>
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<tbody>
<tr>
<td>A. Krishnamoorthy, V.C. Narayanan</td>
<td>Stochastic Decomposition in Production Inventory with Service Time</td>
</tr>
<tr>
<td>B. Van Houdt, J.F. Perez</td>
<td>The impact of dampening demand variability in a production/inventory system with multiple retailers</td>
</tr>
<tr>
<td>H. Toyoizumi, J. Field</td>
<td>Analysis of the Dynamics of Social Queues by Quasi-Birth-and-Death Processes</td>
</tr>
<tr>
<td>S. Drekic, D. Stanford, D. Woolford</td>
<td>A Self-promoting Priority Model for Transplant Queues</td>
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</tbody>
</table>

## Session 6: Approximation and Optimization
**Tuesday June 14, 2011, 4:30 PM -- 6:30 PM**

<table>
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<tbody>
<tr>
<td>S. Hautphenne, G. Latouche, G.T. Nguyen</td>
<td>Markovian trees subject to catastrophes: Do they survive forever?</td>
</tr>
<tr>
<td>E.V. Denardo, E.A. Feinberg, and U.G. Rothblum</td>
<td>Splitting in a Finite Markov Decision Problem</td>
</tr>
<tr>
<td>G. Casale, P.G. Harrison, M.G. Vigliotti</td>
<td>Product-Form Approximation of Queueing Networks with Phase-Type Service</td>
</tr>
<tr>
<td>E.V. Denardo, E.A. Feinberg, and U.G. Rothblum</td>
<td>The Multi-Armed Bandit, with Constraints</td>
</tr>
</tbody>
</table>
### DAY 3: Wednesday June 15, 2011

#### Session 7: Application II
**Wednesday June 15, 2011, 10:30 AM -- 12:30 PM**

<table>
<thead>
<tr>
<th>Authors</th>
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<tbody>
<tr>
<td>Q.-M. He, J. Ren</td>
<td>On a Discrete Multi-Variate Phase-Type Distribution and its applications</td>
</tr>
<tr>
<td>M. Govorun, G. Latouche, M.-A. Remiche</td>
<td>Profits and Risks of pension plans</td>
</tr>
<tr>
<td>D. Stanford, P. Taylor, I. Ziedins</td>
<td>A New Paradigm for Priority Patient Selection</td>
</tr>
<tr>
<td>N. Sonenberg, P.G. Taylor</td>
<td>A network of fluid models and its application in MANETs</td>
</tr>
</tbody>
</table>

### DAY 4: Thursday June 16, 2011

#### Session 8: Phase-Type Distributions
**Thursday June 16, 2011, 9:00 AM -- 10:00 AM**

<table>
<thead>
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<th>Authors</th>
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<tbody>
<tr>
<td>M. Bladt, B.F. Nielsen</td>
<td>Moment distributions of phase–type</td>
</tr>
<tr>
<td>Q.-M. He, H. Zhang, J. Vera</td>
<td>Majorization and Extremal PH-Distributions</td>
</tr>
</tbody>
</table>

#### Session 9: Theory: Fluid Models
**Thursday June 16, 2011, 10:30 AM -- 12:30 PM**

<table>
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<tbody>
<tr>
<td>N.G. Bean, M.M. O’Reilly</td>
<td>A Stochastic Fluid Model driven by an uncountable-state process, which is a Stochastic Fluid Model itself: The Stochastic Fluid-Fluid Model</td>
</tr>
<tr>
<td>J.W. Baek, H.W. Lee, S.W. Lee, S. Ahn</td>
<td>Factorization properties for the MAP-modulated fluid flow queueing models under generalized vacations</td>
</tr>
<tr>
<td>V. Ramaswami</td>
<td>A Fluid Introduction to Brownian Motion and Stochastic Integration</td>
</tr>
<tr>
<td>M.M. O’Reilly, N.G. Bean</td>
<td>Stochastic 2-Dimensional Fluid Model</td>
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</table>

#### Demonstrations/Presentations: Software Solution Packages
**Thursday June 16, 2011, 2:00 PM -- 3:00 PM**

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<tbody>
<tr>
<td>D. Bini, B. Meini, S. Steffe, J.F. Perez, B. Van Houd</td>
<td>SMCSolver and Q-MAM: tools for matrix-analytic methods</td>
</tr>
<tr>
<td>G. Casale, E. Smirni</td>
<td>KPC-Toolbox: Fitting Markovian Arrival Processes and Phase-Type Distributions with MATLAB</td>
</tr>
<tr>
<td>M. Cote, G. Riaño R. Akhavan-Tabatabaei</td>
<td>jMarkov Package: A Stochastic Modeling Tool</td>
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