

NATIONAL MATHEMATICS INITIATIVE (NMI)
Indian Institute of Science, Bangalore

Conference on
STOCHASTIC SYSTEMS AND APPLICATIONS
(September 08 - 11, 2014)
Venue: LH-I, Department of Mathematics, IISc, Bangalore

Programme Schedule

September 08, 2014
(Monday)

09:00AM - 09:30 AM

REGISTRATION

Session 01

Chair: G. Rangarajan

09:30 AM - 10:15 AM

Some Random Distorted Gossip
Vivek S Borkar

10:15 AM - 11:00 AM

A Hybrid Particle-Kalman Filter Method for High Dimensional
Data Assimilation Problems
Amit Apte

11:00 AM - 11:30 AM

Tea/Coffee

Session 02

Chair: N. Viswanadham

11:30 AM - 12:15 PM

Adaptive Policies for Online Ad Selection Under Chunked
Reward Pricing Model
Dinesh Garg

12:15 PM - 01:00 PM

Multiscale Q-learning with Function Approximation
and an Application in Wireless Sensor Networks
Shalabh Bhatnagar

01:00 PM - 02:00 PM

Lunch

Session 03

Chair: K. Suresh Kumar

02:00 PM - 02:45 PM

Gaussian Approximations in High Dimensional Estimations
Neeraja Sahasrabudhe

02:45 PM - 03:30 PM

On a New Class of Ergodic Control Problems Arising from
the Multi-Class Queuing Systems
Anup Biswas

03:30 PM - 04:00 PM

Tea/Coffee

Session 04

Chair: Shalabh Bhatnagar

04:00 PM - 04:45 PM

A Dynamic Model of Capital Inflow in an Infinite Horizon
Framework
Gopal K. Basak

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Programme Schedule

September 09, 2014
(Tuesday)

Session 05

Chair: Gopal K. Basak

09:30 AM - 10:15 AM A Pollaczek-Khinchine Formula for Multidimensional Ruin Problem
S. Ramasubramanian

10:15 AM - 11:00 AM Some New Results on the Geometry of Random Fields
Sreekar Vadlamani

11:00 AM - 11:30 AM **Tea/Coffee**

Session 06

Chair: Sandeep Juneja

11:30 AM - 12:15 PM Green Supply Chain Design: An Ecosystem Approach
N. Viswanadham

12:15 PM - 01:00 PM Revenue Maximisation with Tatkal Seva
D. Manjunath

01:00 PM - 02:00 PM **Lunch**

Session 07

Chair: Vinod Sharma

02:00 PM - 02:45 PM Visual Search as Active Sequential Hypothesis Testing
Rajesh Sundaresan

02:45 PM - 03:30 PM On Competitive Provisioning of Cloud Services
Jayakrishnan Nair

03:30 PM - 04:00 PM **Tea/Coffee**

Session 08

Chair: Rajesh Sundaresan

04:00 PM - 04:45 PM Gap Probabilities in Certain Point Processes
Manjunath Krishnapur

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Programme Schedule

September 10, 2014
(Wednesday)

Session 09

Chair: D. Manjunath

09:30 AM - 10:15 AM Ordinal Optimization in Simulation and Pure Exploration
Multi-Armed Bandit Methods
Sandeep Juneja

10:15 AM - 11:00 AM A Multi-Armed-Bandit Crowdsourcing Mechanism with
Incentive Compatible Learning
Y. Narahari

11:00 AM - 11:30 AM **Tea/Coffee**

Session 10

Chair: Arup Bose

11:30 AM - 12:15 PM Dense Graph Limits Under Respondent-Driven Sampling
Siva Athreya

12:15 PM - 01:00 PM Probabilistic Juggling
Arvind Ayer

01:00 PM - 02:00 PM **Lunch**

Session 11

Chair: S. Ramasubramanian

02:00 PM - 02:45 PM Limiting Spectral Distribution of Symmetrized Autocovariance
Matrices for Infinite Dimensional Vector Linear Process
Arup Bose

02:45 PM - 03:30 PM **Tea/Coffee**

Session 12

Chair: Rahul Roy

03:30 PM - 05:00 PM FELICITATION

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Programme Schedule

September 11, 2014
(Thursday)

Session 13

Chair: Srikanth K. Iyer

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|---------------------|---|
| 09:30 AM - 10:15 AM | Novel Algorithms for Distributed Detection
<i>Vinod Sharma</i> |
| 10:15 AM - 11:00 AM | A Non linear Donsker-Varadhan Variational Formula and
Risk-sensitive Control
<i>K. Suresh Kumar</i> |
| 11:00 AM - 11:30 AM | Tea/Coffee |

Session 14

Chair: Manjunath Krishnapur

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|---------------------|--|
| 11:30 AM - 12:15 PM | The Monotonicity Inequality and Uniqueness of SPDE's
<i>B. Rajeev</i> |
| 12:15 PM - 01:00 PM | Autoregressive Cascades on Random Networks
<i>Srikanth K. Iyer</i> |
| 01:00 PM - 02:00 PM | Lunch |

Session 15

Chair: M. K. Ghosh

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|---------------------|---|
| 02:00 PM - 02:45 PM | Marginalization for Rare Event Simulation in Switching
Diffusion
<i>Anindya Goswami</i> |
| 02:45 PM - 03:30 PM | Ergodic Control of Nonexpansive and Degenerate Diffusions
<i>K. Mallikarjuna Rao</i> |
| 03:30 PM - 04:00 PM | Tea/Coffee |