Masanori Koyama

Kyoto University Department of Systems Science   koyama-m@sys.i.kyoto-u.ac.jp
Graduate School of Informatics   ishiilab.jp/member/koyama-m//∼koyama
Kogakubu 1 goukan, Ishii Laboratory Rm421   phone: 080-8863-1990
Kyoto, Sakyoku, Yoshida-Honcho , 606-8501 , Japan

EDUCATION

- Ph.D, Mathematics, University of Wisconsin Madison, Madison, WI., Dec 2013.
- M.A., Mathematics, University of Wisconsin Madison, Madison, WI., 2009.
- B.A., Mathematics with honor, Harvey Mudd College, Claremont, CA., 2007.

EMPLOYMENT

- August 2007 – Dec 2013,

    - Teaching Assistant / Research Assistant in Department of Mathematics, University of Wisconsin, Madison, U.S.A

- Jan 2014 – Present,

    - Post Doctoral Researcher, Graduate School of Informatics , Department of Systems Science, Kyoto University, Kyoto, Japan

WRITINGS

1. Takeru Miyato, Shin-ichi Maeda, Masanori Koyama, Ken Nakae, Shin Ishii, *Distributional Smoothing by Virtual Adversarial Examples.* Submitted to arxiv, 2015

2. Sotetsu Koyamada, Masanori Koyama, Ken Nakae, Shin Ishii, *Principal Sensitivity Analysis.* The Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), Ho Chi Minh City, Vietnam, 05/2015

3. David F.Anderson and Masanori Koyama, *An asymptotic relationship between coupling methods for stochastically modeled population processes* ,IMA Journal of Numerical Analysis, IMA Journal of Numerical Analysis, 03/2014

4. Gota Morota, Masanori Koyama, Guilherme J M Rosa, Kent A Weigel, Daniel Gianola, *Predicting complex traits using a diffusion kernel on genetic markers with an application to dairy cattle and wheat data* ,Genetics Selection Evolution ; 45(1):17, 06/2013

5. David F. Anderson and Masanori Koyama, *Weak error analysis of approximate simulation methods for multi-scale stochastic chemical kinetic systems*, SIAM: Multiscale Modeling and Simulation, Vol. 10, No. 4, 1493 - 1524, 2012.

6. Masanori Koyama, *Analysis for stochastically modeled biochemcial processes with applications to numerical methods*, PhD thesis, 2013.

7. Masanori Koyama, Michael Orrison and David Neel, *Irreducible graphs* . Journal of Combinatorial Mathematics and Combinatorial Computing 62, 35-43, 2007

Other Works

- *Deep learning of fMRI big data: a novel approach to subject-transfer decoding* Sotetsu Koyamada, Yumi Shikauchi, Ken Nakae, Masanori Koyama, Shin Ishii, Submitted.

- *Efficient Monte Carlo Image Analysis for the Location Of Vascular Entity.* Henrik Skibbe, Marco Reisert, Shin-Ichi Maeda, Masanori Koyama, Shigeyuki Oba, Kei Ito, Shin Ishii, IEEE Transactions on Medical Imaging, ; 34(2), 10/2014

- *A Statistical Method of Identifying Interactions in Neuron?Glia Systems Based on Functional Multicell Ca2+ Imaging*, PLoS Computational Biology ; 10(11), 11/2014

LANGUAGE

- Fluent in English and Japanese. Conversational skill in Chinese (HSK Level 3).

- Python, Matlab, R

SOFTWARE DEVELOPMENT

- In collaboration with Gota Morota, constructed the mathematical framework to the R package: `"http://cran.r-project.org/web/packages/dkDNA/index.html"`"dkRNA: Diffusion Kernels on a set of genotypes"

Conferences,invited talks, poster presentations

- *Inference of stochastic dynamics from snapshot data*, 2015 Winter q-bio meeting

- *Weak analysis and MLMC for the system of interacting Poisson processes*, 2015, Ristumeikan University Seminar