

# Wittawat Jitkrittum

Postdoctoral Researcher at Max Planck Institute for Intelligent Systems

🏠 [wittawat.com](http://wittawat.com) | ✉ [wittawatj@gmail.com](mailto:wittawatj@gmail.com) | 🌐 [wittawatj](https://www.wittawatj.com) | 🐦 [@wittawatj](https://twitter.com/wittawatj)

---

**Address** Max Planck Institute for Intelligent Systems  
Max-Planck-Ring 4  
72076 Tübingen  
Germany

## Education

2013 – 2017 **PhD in Machine Learning**  
Gatsby Unit, University College London (UCL)

2010 – 2012 **MEng in Computer Science**  
Tokyo Institute of Technology

2005 – 2009 **BSc in Computer Science**  
Sirindhorn International Institute of Technology (SIIT), Thammasat University  
CGPA: 3.93/4.00 (*first class honors, silver medal award*)

2004 – 2005 **Intensive Japanese Language Program**  
Waseda Education (Thailand)

## Academic Experience

3/2017, 3/2016 **Visiting Researcher** with Prof. Kenji Fukumizu  
The Institute of Statistical Mathematics, Japan

2014, 2016 **Graduate Course Teaching Assistant** at UCL

- Approximate Inference and Learning in Probabilistic Models
- Reproducing Kernel Hilbert Spaces for Machine Learning

2012 – 2013 **Lab Instructor** at SIIT  
Prepared class materials and led hands-on programming sessions.

- Basic Programming in C
- Object Oriented Programming in Java
- Database Systems and Web Development

Overall teaching evaluation: 4.8/5.0. Class size: 30-50.

2009 – 2010 **Research Assistant** with Prof. Thanaruk Theeramunkong  
SIIT, Thammasat University  
Research: association rule mining, text retrieval.

2007 – 2008 **Research Assistant** with Dr. Choochart Haruechaiyasak  
Human Language Technology Lab, National Electronics and Computer Technology Center (NECTEC), Thailand  
Research: offline search engine, automatic news categorization.

## Services

2016 **Publicity Chair** AISTATS 2016

**Journal Reviewer** JMLR 2018

**Conference Reviewer** NIPS 2015-2017, ICML 2016-2018, AISTATS 2017-2018, ACML 2017, ICLR 2017.

**Workshop Reviewer** NIPS Workshop on Advances in Approximate Bayesian Inference 2015-2017.

2014 – 2017      **Machine Learning Journal Club Organizer**  
Gatsby Unit, University College London

## Awards

12/2017      **NIPS 2017 Best Paper Award**  
Awarded to 3 out of 3240 submissions to NIPS 2017.

2013 – 2017      **Gatsby Unit Studentship**  
Full scholarship with stipend for PhD study. Awarded to 2-4 students per year.

2010 – 2012      **Okazaki Kaheita Scholarship**  
Full scholarship with stipend for master study. Awarded to one Thai student once every three years.

2010      **Second Prize at National Software Contest (NSC) 2010**  
Project: Thai Text Tokenization with a Binary Classifier  
Category: Thai Language Processing

2009      **Second Prize at National Software Contest (NSC) 2009**  
Project: Question Answering System for Thai Wikipedia  
Category: Software for Scientific Development

2009      **Honor Award from His Majesty King Bhumibol Adulyadej**  
Awarded to one student with the highest GPA in the department

## Invited Talks

2018      Machine Learning Fundamentals I  
Vidyasirimedhi Institute of Science and Technology (VISTEC)  
  
Introduction to Kernel Methods for Comparing Distributions  
Bangkok Machine Learning Meetup  
  
A Linear-Time Kernel Goodness-of-Fit Test  
The Workshop on Functional Inference and Machine Intelligence (FIMI).

2017      A Linear-Time Kernel Goodness-of-Fit Test  
Department of Computer Science, University of Bristol  
  
Code Demo: A Linear-Time Kernel Goodness-of-Fit Test  
MLTrain Workshop: Learn How to Code a Paper at NIPS 2017  
  
An Adaptive Test of Independence with Analytic Kernel Embeddings  
The 2<sup>nd</sup> Probabilistic Graphical Model Workshop, The Institute of Statistical Mathematics

2016      Interpretable Distribution Features With Maximum Testing Power  
Sugiyama-Sato Lab, University of Tokyo  
  
Improving Approximate Bayesian Inference with Kernel Methods  
Probabilistic Graphical Model Workshop, The Institute of Statistical Mathematics

## Skills

Most Experienced:      Python, Matlab, L<sup>A</sup>T<sub>E</sub>X  
Experienced:      Java, C, PHP & MySQL, HTML/CSS/Javascript  
Some Experience:      C# (Infer.NET), Theano, TensorFlow, Mathematica  
Languages      Thai (native), English (fluent), Japanese (intermediate), Chinese (elementary)

## Publications

### Journal Articles

1. Kiyohito Iigaya, Aurelie Jolivald, **Wittawat Jitkrittum**, Iain Gilchrist, Peter Dayan, Elizabeth Paul, and Mike Mendl. Cognitive bias in ambiguity judgements: Using computational models to dissect the effects of mild mood manipulation in humans. *Plos One*, 2016
2. Makoto Yamada, **Wittawat Jitkrittum**, Leonid Sigal, Eric P. Xing, and Masashi Sugiyama. High-dimensional feature selection by feature-wise kernelized lasso. *Neural Computation*, 26(1), 2014
3. **Wittawat Jitkrittum**, Hirotaka Hachiya, and Masashi Sugiyama. Feature selection via  $\ell_1$ -penalized squared-loss mutual information. *IEICE Transactions*, 96-D(7):1513–1524, 2013

### Peer-Reviewed Conference Papers

1. **Wittawat Jitkrittum**, Wenkai Xu, Zoltán Szabó, Kenji Fukumizu, and Arthur Gretton. A linear-time kernel goodness-of-fit test. In *NIPS*, 2017. (Best paper award, 3 out of 3240 submissions)
2. **Wittawat Jitkrittum**, Zoltán Szabó, and Arthur Gretton. An adaptive test of independence with analytic kernel embeddings. In *ICML*, 2017
3. **Wittawat Jitkrittum**, Zoltán Szabó, Kacper Chwialkowski, and Arthur Gretton. Interpretable distribution features with maximum testing power. In *NIPS*, 2016. (Oral presentation, 1.8%)
4. Mijung Park\*, **Wittawat Jitkrittum**\*, and Dino Sejdinovic. K2-ABC: Approximate Bayesian computation with kernel embeddings. In *AISTATS*, 2016. (*The first two authors contributed equally. Oral presentation, 6.5%*)
5. Mijung Park, **Wittawat Jitkrittum**, Ahmad Qamar, Zoltán Szabó, Lars Buesing, and Maneesh Sahani. Bayesian manifold learning: The locally linear latent variable model. In *NIPS*, 2015. (Acceptance rate: 21.8%)
6. **Wittawat Jitkrittum**, Arthur Gretton, Nicolas Heess, S. M. Ali Eslami, Balaji Lakshminarayanan, Dino Sejdinovic, and Zoltán Szabó. Kernel-based just-in-time learning for passing expectation propagation messages. In *UAI*, 2015
7. Gang Niu, **Wittawat Jitkrittum**, Bo Dai, Hirotaka Hachiya, and Masashi Sugiyama. Squared-loss mutual information regularization: A novel information-theoretic approach to semi-supervised learning. In *ICML*, 2013
8. **Wittawat Jitkrittum**, Thanaruk Theeramunkong, and Choochart Haruechaiyasak. Proximity-based semantic relatedness measurement on Thai Wikipedia. In *International Conference on Knowledge, Information and Creativity Support Systems (KICSS)*, 2008
9. Choochart Haruechaiyasak, Chatchawal Sangkeettrakarn, and **Wittawat Jitkrittum**. Managing offline educational web contents with search engine tools. In *International Conference on Asia-Pacific Digital Libraries*, 2007

### Workshop Papers

1. Vincent Adam, Joana Soldado-Magraner, **Wittawat Jitkrittum**, Heiko Strathmann, Balaji Lakshminarayanan, Alessandro Davide Ialongo, Gergo Bohner, Ben Dongsung Huh, Lea Goetz, Shaun Dowling, Julian Vlad Serban, and Matthieu Louis. Performance of synchrony and spectral-based features in early seizure detection: exploring feature combinations and effect of latency. *International Workshop on Seizure Prediction (IWSP) 2015: Epilepsy Mechanisms, Models, Prediction and Control*, 2015
2. **Wittawat Jitkrittum**, Choochart Haruechaiyasak, and Thanaruk Theeramunkong. QAST: question answering system for Thai wikipedia. In *Proceedings of the 2009 Workshop on Knowledge and Reasoning for Answering Questions*, KRAQ '09. ACL, 2009
3. Choochart Haruechaiyasak, **Wittawat Jitkrittum**, Chatchawal Sangkeettrakarn, and Chaianun Damrongrat. Implementing news article category browsing based on text categorization technique. In *Web Intelligence/IAT Workshops*, 2008

(Last update: 03/04/2018)