

Curriculum Vitae

Takeru Matsuda

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Education

- March 2012: Bachelor of Engineering, Department of Mathematical Engineering and Information Physics, The University of Tokyo
- March 2014: Master of Information Science and Technology, Department of Mathematical Informatics, The University of Tokyo
- March 2017: Doctor of Information Science and Technology, Department of Mathematical Informatics, The University of Tokyo

Academic Experience

- April 2014 – March 2017: JSPS Research Fellow (DC1)
- April 2017 – May 2020: Assistant Professor, Department of Mathematical Informatics, The University of Tokyo
- June 2017 – March 2018: Visiting Researcher, RIKEN Brain Science Institute
- April 2018 – May 2020: Visiting Researcher, RIKEN Center for Brain Science
- June 2020 – present: Statistical Mathematics Unit Leader, RIKEN Center for Brain Science

Awards

- March 2012: Dean's award from Faculty of Engineering, The University of Tokyo
- March 2017: Dean's award from Graduate School of Information Science and Technology, The University of Tokyo

Publications

- T. Matsuda and W. E. Strawderman. Predictive density estimation under the Wasserstein loss. *Journal of Statistical Planning and Inference*, Vol. 210, pp. 53–63, 2021.

- M. Uehara, T. Matsuda and J. K. Kim. Imputation estimators for unnormalized models with missing data. Proceedings of the 23rd International Conference on Artificial Intelligence and Statistics (AISTATS 2020), 2020.
- W. Xu and T. Matsuda. A Stein goodness-of-fit test for directional distributions. Proceedings of the 23rd International Conference on Artificial Intelligence and Statistics (AISTATS 2020), 2020.
- M. Uehara, T. Kanamori, T. Takenouchi and T. Matsuda. A unified estimation framework for unnormalized models with statistical efficiency. Proceedings of the 23rd International Conference on Artificial Intelligence and Statistics (AISTATS 2020), 2020.
- T. Ohki*, T. Matsuda*, A. Gunji, Y. Takei, R. Sakuma, Y. Kaneko, M. Inagaki, T. Hanakawa, K. Ueda, M. Fukuda and K. Hiraki. Timing of phase amplitude coupling in the temporal pole is essential for neuronal and functional maturation of audiovisual integration in adolescence. *Brain and Behavior*, e01635, 2020.
- T. Matsuda. Statistical analysis of *kimariji* in competitive karuta (in Japanese). *Japanese Journal of Applied Statistics*, Vol. 49, pp. 1–11, 2020.
- T. Matsuda and A. Takemura. Game-theoretic derivation of upper hedging prices of multivariate contingent claims and submodularity. *Japan Journal of Industrial and Applied Mathematics*, Vol. 37, pp. 213–248, 2020.
- T. Matsuda and A. Hyvärinen. Estimation of Non-Normalized Mixture Models. 22nd International Conference on Artificial Intelligence and Statistics (AISTATS 2019).
- T. Matsuda and F. Komaki. Empirical Bayes matrix completion. *Computational Statistics & Data Analysis*, Vol. 137, pp. 195–210, 2019.
- T. Matsuda and W. E. Strawderman. Improved loss estimation for a normal mean matrix. *Journal of Multivariate Analysis*, Vol. 169, pp. 300–311, 2019.
- Y. Maruyama, T. Matsuda and T. Onishi. Harmonic Bayesian prediction under alpha-divergence. *IEEE Transactions on Information Theory*, Vol. 65, pp. 5352–5366, 2019.
- Y. T. Chang, T. Matsuda and W. E. Strawderman. A Note on Improving on a Vector of Coordinate-wise Estimators of Non-negative Means via Shrinkage. *Statistics & Probability Letters*, Vol. 153, pp. 143–150, 2019.
- T. Matsuda and F. Komaki. Time series decomposition into oscillation components and phase estimation. *Neural Computation*, Vol. 29, pp. 332–367, 2017.
- T. Matsuda and F. Komaki. Multivariate time series decomposition into oscillation components. *Neural Computation*, Vol. 29, pp. 2055–2075, 2017.
- T. Matsuda, K. Kitajo, Y. Yamaguchi and F. Komaki. A point process modeling approach for investigating the effect of online brain activity on perceptual switching. *NeuroImage*, Vol. 152, pp. 50–59, 2017.
- T. Koyama, T. Matsuda and F. Komaki. Minimax estimation of quantum states based on the latent information priors. *Entropy*, Vol. 19, 618, 2017.

- M. Tsuji, T. Kawasaki, T. Matsuda, S. Gojo and J. Takeuchi. Sexual dimorphisms of mRNA and miRNA in human/murine heart disease. *PLOS ONE*, Vol. 12, e0177988, 2017.
- T. Matsuda and W. E. Strawderman. Pitman closeness properties of Bayes shrinkage procedures in estimation and prediction. *Statistics & Probability Letters*, Vol. 119, pp. 21–29, 2016.
- T. Matsuda and W. E. Strawderman. Pitman closeness properties of point estimators and predictive densities with parametric constraints. *Statistics & Probability Letters*, Vol. 116, pp. 101–106, 2016.
- T. Matsuda and F. Komaki. Singular value shrinkage priors for Bayesian prediction. *Biometrika*, Vol. 102, pp. 843–854, 2015.
- T. Matsuda and T. Matsuo. A new geometric integration approach based on local invariants. *JSIAM Letters*, Vol. 5, pp. 37–40, 2013.