

EMI TANAKA

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skill stack

R, HTML/CSS, LaTeX, Git/GitHub

research interests

experimental design, mixed models, statistical graphics,
bioinformatics, statistical genetics

employment

2020/01-current	Lecturer	Monash University, Department of Econometrics and Business Statistics
2017/01-2019/12	Lecturer	The University of Sydney, School of Mathematics and Statistics
2014/01-2017/01	Research fellow	University of Wollongong, School of Mathematics and Applied Statistics

education

PhD, Statistics

Statistical Methods for Improving Motif Evaluation

Supervisor: Dr. Uri Keich

School of Mathematics and Statistics

The University of Sydney

2015 | Sydney, Australia

BSci (Adv Maths), Honour I

Major in Mathematics and Statistics

The University of Sydney

2010 | Sydney, Australia

publications

1. Morota, G, Cheng, H, Cook, D, & **Tanaka, E** (2021) ASAS-NANP SYMPOSIUM: Prospects for interactive and graphics in the era of data-rich animal science. *Journal of animal science*, 99(2). *Citations: 1*.
2. **Tanaka, E** (2020) Simple outlier detection for a multi-environmental field trial. *Biometrics*, 76(4), 1374-1382. *Citations: 4*.
3. **Tanaka, E** & Hui, F (2019) Symbolic formulae for linear mixed models. *Statistics and data science*, 3-21
4. Hui, F, **Tanaka, E**, & Warton, D (2018) Order selection and sparsity in latent variable models via the ordered f LASSO. *Biometrics*, 74(4), 1311-1319. *Citations: 6*.

5. Norman, A, Taylor, J, **Tanaka, E**, Telfer, P, Edwards, J, Martinant, J, & Kuchel, H (2017) Increased genomic p accuracy in wheat breeding using a large australian panel. *Theoretical and applied genetics*, 130(12), 2543-2553. *Citations: 15*.
6. **Tanaka, E**, Ral, J, Li, S, Gaire, R, Cavanagh, C, Cullis, B, & Whan, A (2017) Increased accuracy of starch gra type quantification using mixture distributions. *Plant methods*, 13, 107. *Citations: 5*.
7. **Tanaka, E** (2014) Statistical methods for improving motif evaluation. *PhD Thesis*
8. **Tanaka, E**, Bailey, T, & Keich, U (2014) Improving MEME via a two-tiered significance analysis. *Bioinformatics* 1965-1973. *Citations: 17*.
9. Liachko, I, **Tanaka, E**, Cox, K, Chung, S, Yang, L, Seher, A, Hallas, L, Cha, E, Kang, G, Pace, H, Barrow, J, Li, Tye, B, & Keich, U (2011) Novel features of ARS selection in budding yeast *Saccharomyces cerevisiae*. *BMC genomics* 12:633. *Citations: 22*.
10. **Tanaka, E**, Bailey, T, Grant, C, Noble, W, & Keich, U (2011) Improved similarity scores for comparing motifs. *Bioinformatics*, 27(12), 1603-1609. *Citations: 49*.

Citation counts are sourced from Google Scholar at 2021-03-07.

talks

(Note: work-in-progress - data incomplete)

List of talks (and links to the slides if available) are at <https://emitanaka.org/talks.html>.

Below show the last 10 talks.

2021-01-23	The Grammar of Experimental Design	TokyoR
2020-11-27	Advent of “Grammar”: Bridging Statistics and Data Science for the Design of Experiments	Statistical Society of Australia
2020-11-11	Rethinking the framework to specify the design of experiments	Department of Agriculture and Fisheries, Queensland
2020-09-30	What every young statistician should know: Developing your identity, networking and marketing	Statistical Society of Australia Western Australian Branch
2020-07-15	Advent of “Grammar”: Bridging Statistics and Data Science for the Design of Experiments	Monash Bioinformatics Seminar
2020-06-23	Beyond Beamer: Modern and Dynamic Presentations with R Markdown	Statistical Society of Australia Canberra & NSW Branch
2019-11-28	Software design, selection and estimation for latent variable models	WOMBAT

workshops

(Note: work-in-progress - data incomplete)

2020/12	Data Wrangling with R <i>Hosted by Statistical Society of Australia NSW Branch.</i>
2020/11	Data Visualisation with R <i>Co-presented with Di Cook. Hosted by Statistical Society of Australia VIC Branch.</i>
2019/12	Tidyverse and R Markdown Workshop <i>Hosted by International Biometrics Society Australasia Region</i>

2019/11	R Package & R Markdown Workshop <i>Co-presented with Damjan Vukcevic. Hosted by Statistical Society of Australia VIC Branch.</i>
2018/11	Statistical Methods for Omics Assisted Breeding <i>Co-presented with Gota Morota, Diego Jarquin, Malachy Campbell, Jessica Tressou, Hiroyoshi Iwata. Hosted by University of Tokyo.</i>

service

2020/03-2021/03	Statistical Society of Australia, Victoria Branch	Vice President
2021/03-2023/03	Statistical Society of Australia, Victoria Branch	President
2023/03-2024/03	Statistical Society of Australia, Victoria Branch	Vice President
2017/03-2018/03	Statistical Society of Australia, NSW Branch	Assistant Secretary
2018/03-2020/03	Statistical Society of Australia, NSW Branch	Secretary
2018/01-ongoing	International Biometrics Society, Australasian Region	Social Media Coordinator
2021/03-2021/03	useR! 2021, Program Committee	Member

professional memberships

- Statistical Society of Australia
- International Biometrics Society

awards & distinctions

2019	ARC Industrial Transformation Training Centre Lead: Sally Cripps	\$3,973,202
2019	R Consortium Grant Lead: Emi Tanaka	\$6,000
2018	Sydney Institute of Agriculture Research Project Grant Lead: Thomas Bishop Competitive grant with 36% success rate.	\$90,000
2011	SSA NSW Branch J. B. Douglas Award Prize Each school/department in NSW nominates one near-final or recently-completed postgraduate student then the nominated student is required to make a 15-20 minute presentation to the audience and judging panel, followed by 5 minutes of questions. I was nominated in the second year of my Ph.D. candidature (almost all nominated students are 3rd or 4th year Ph.D. students) and I won second prize.	\$500
2010	Winter School Student Travel Bursaries Selected by Selection Committee of Winter School in Mathematical & Computational Biology to attend Winter School in Mathematical & Computational Biology 2011, University of Queensland, Queensland.	\$250
2010	Statistical Society of Australia Inc. Student Travel Grant Selected by Statistical Society of Australia NSW Branch Council to attend the Australian Statistical Conference 2010, Fremantle, Australia.	\$300
2010	Australian Postgraduate Award Funded by the Australian Federal Government and awarded to students of exceptional research potential.	\$78,750
2008	Dean's List for Academic Excellence Awarded for academic excellence	

Awarded for academic excellence.

2008	Tim Brown Prize II The Tim Brown Prize II is awarded for proficiency in Senior Statistics at the School of Mathematics and Statistics, The University of Sydney.	\$275
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2008	Barker Scholarship IV Awarded for proficiency in Senior units of study in the School of Mathematics and Statistics at the School of Mathematics and Statistics, The University of Sydney.	\$750
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