

# EMI TANAKA

✉ [emi.tanaka@monash.edu](mailto:emi.tanaka@monash.edu)  @statsgen  emitanaka  [emitanaka.org](http://emitanaka.org)

## 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

- Tanaka E (2020). "Simple outlier detection for a multi-environmental field trial." *Biometrics*. ISSN 0006-341X, 1541-0460. doi: 10.1111/biom.13216 (URL: <https://doi.org/10.1111/biom.13216>).
- Tanaka E, Hui FKC (2019). "Symbolic Formulae for Linear Mixed Models." In *Statistics and Data Science*, 3-21. doi: 10.1007/978-981-15-1960-4\_1 (URL: [https://doi.org/10.1007/978-981-15-1960-4\\_1](https://doi.org/10.1007/978-981-15-1960-4_1)).
- Norman A, Taylor J, Tanaka E, Telfer P, Edwards J, Martinant J, Kuchel H (2017). "Increased genomic prediction accuracy in sheep breeding using a large Australian panel." *TAG. Theoretical and applied genetics. Theoretische und angewandte Genetik*. ISSN 0040-5752, 1432-2242, doi: 10.1007/s00122-017-2975-4 (URL: <https://doi.org/10.1007/s00122-017-2975-4>).

Tanaka E, Ral JF, Li S, Gaire R, Cavanagh CR, Cullis BR, Whan A (2017). "Increased accuracy of starch granule type using mixture distributions." *Plant methods*, 13, 107. ISSN 1746-4811, doi: 10.1186/s13007-017-0259-2 (URL: <https://doi.org/10.1186/s13007-017-0259-2>).

Hui FKC, Tanaka E, Warton DI (2018). "Order selection and sparsity in latent variable models via the ordered factor L<sub>1</sub>/L<sub>2</sub> norm." *Biometrics*, 74(4), 1311-1319. ISSN 0006-341X, 1541-0420, doi: 10.1111/biom.12888 (URL: <https://doi.org/10.1111/bic>).

Tanaka E, Bailey TL, Keich U (2014). "Improving MEME via a two-tiered significance analysis." *Bioinformatics*, 30(14), 1367-4803, 1367-4811, doi: 10.1093/bioinformatics/btu163 (URL: <https://doi.org/10.1093/bioinformatics/btu163>).

Liachko I, Tanaka E, Cox K, Chung SCC, Yang L, Seher A, Hallas L, Cha E, Kang G, Pace H, Barrow J, Inada M, Tye (2011). "Novel features of ARS selection in budding yeast *Lachancea kluyveri*." *BMC genomics*, 12, 633. ISSN 1471-2164, 1471-2164-12-633 (URL: <https://doi.org/10.1186/1471-2164-12-633>).

Tanaka E, Bailey T, Grant CE, Noble WS, Keich U (2011). "Improved similarity scores for comparing motifs." *Bioinform* 1603-1609. ISSN 1367-4803, 1367-4811, doi: 10.1093/bioinformatics/btr257 (URL: <https://doi.org/10.1093/bioinformat>).

## presentations

## workshops

## 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, Australaisan Region	Social Media Coordinator
2021/03-2021/03	useR! 2021, Program Committee	Member

## awards & distinctions

2018	Sydney Institute of Agriculture Research Project Grant 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	\$300

Selected by Statistical Society of Australia NSW Branch Council to attend the Australian Statistical Conference 2010, Fremantle, Australia.

2010	<b>Australian Postgraduate Award</b> Funded by the Australian Federal Government and awarded to students of exceptional research potential.	<b>\$78,750</b>
2008	<b>Dean's List for Academic Excellence</b> Awarded for academic excellence.	
2008	<b>Tim Brown Prize II</b> The Tim Brown Prize II is awarded for proficiency in Senior Statistics at the School of Mathematics and Statistics, The University of Sydney.	<b>\$275</b>
2008	<b>Barker Scholarship IV</b> 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.	<b>\$750</b>