EMI TANAKA

WORK EXPERIENCE

Lecturer

Monash University,
Department of Econometrics and Business Statistics

2020/01 - current

Lecturer

The University of Sydney,
School of Mathematics and Statistics

2017/01 - 2019/12

Research fellow

University of Wollongong,
School of Mathematics and Applied Statistics

2014/01 - 2017/01

EDUCATION

PhD, Statistics
Statistical Methods for Improving Motif Evaluation
Supervisor: Dr. Uri Keich
School of Mathematics and Statistics
The University of Sydney, Sydney, Australia, 2015

Bachelor of Science (Advanced Mathematics), Honour I
Major in Mathematics and Statistics
The University of Sydney, Sydney, Australia, 2010

PUBLICATIONS

1. Morota, G, Cheng, H, Cook, D, & Tanaka, E (2021) ASAS-NANP SYMPOSIUM: Prospects for interactive and dynamic 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 factor 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 prediction accuracy in

Contact

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github.com/emitanaka
@statsgen

For more information, please contact me via email.

Skills

Expert: R, HTML/CSS, LaTeX
Intermediate: Git/GitHub, Python, Bash, JS
Languages: English (fluent) and Japanese (conversational)

Interests

Research: experimental design, mixed models, data visualisation, bioinformatics, statistical genetics, selective breeding
Non-Research: drawing (but not good at it), reading (manga, manhwa and non-fiction books)

*This resume was made with the R package **pagedown**.*
Last updated on 2021-03-18.

wheat breeding using a large australian panel. *Theoretical and applied genetics*, 130(12), 2543-2555. *Citations: 16*.

6. Tanaka, E, Ral, J, Li, S, Gaire, R, Cavanagh, C, Cullis, B, & Whan, A (2017) Increased accuracy of starch granule 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*, 30(14), 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, Inada, M, Tye, B, & Keich, U (2011) Novel features of ARS selection in budding yeast lachancea kluyveri. *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 2021-03-18.

</> SOFTWARE

edibble

An R-package that implements the grammar of experimental design.
Creator and maintainer. GitHub stars: 121
Source: https://github.com/emitanaka/edibble
Documentation: https://edibble.emitanaka.org

anicon

An R-package to insert animated icons for R markdown and Shiny apps.
Creator. GitHub stars: 109
Source: https://github.com/emitanaka/anicon

nestr

An R-package to build hierarchical or nested sturctures.
Creator and maintainer. GitHub stars: 1
Source: https://github.com/emitanaka/nestr
Documentation: https://nestr.emitanaka.org

monash

A utility R-package with consolidated tools and templates for staffs at Monash University.
Creator and maintainer. GitHub stars: 3
Source: https://github.com/numbats/monash

xaringan

An R package for creating slideshows with remark.js through R Markdown.

Contributor. My contribution is the adaptation of the ninja-theme shown in the Documentation. GitHub stars: 1129
🔗 Source: https://github.com/yihui/xaringan
🔗 Documentation: https://github.com/emitanaka/ninja-theme

gghdr

Plots of highest density regions (HDR) for ggplot2.
Listed as author but my contribution is small. GitHub stars: 34
🔗 Source: https://github.com/ropenscilabs/gghdr
🔗 Documentation: https://ropenscilabs.github.io/gghdr

shinycustomloader

Add a custom loader for R shiny.
Creator. GitHub stars: 97
🔗 Source: https://github.com/emitanaka/shinycustomloader

datalegreyar

Datalegreya, the typeface that melts text and data visualisation, for R markdown.
Creator. GitHub stars: 38
🔗 Source: https://github.com/emitanaka/datalegreyar

Tomtom

A motif comparison tool part of the MEME Suite.
The -incomplete-scores is an implementation as a result of Tanaka et al. (2011).
🔗 Documentation: https://meme-suite.org/meme/doc/tomtom.html

TALKS

List of talks (and links to the slides if available) are at **https://emitanaka.org/talks.html**.
Below show the last 10 talks.

- The Grammar of Experimental Design
  TokyoR
  2021-01-23
- Advent of “Grammar”: Bridging Statistics and Data Science for the Design of Experiments
  Statistical Society of Australia
  2020-11-27
- Rethinking the framework to specify the design of experiments
  Department of Agriculture and Fisheries, Queensland
  2020-11-11
- What every young statistician should know: Developing your identity, networking and marketing
  Statistical Society of Australia Western Australian Branch
  2020-09-30

- Advent of “Grammar”: Bridging Statistics and Data Science for the Design of Experiments

  Monash Bioinformatics Seminar

  2020-07-15

- Beyond Beamer: Modern and Dynamic Presentations with R Markdown

  Statististical Society of Australia Canberra & NSW Branch

  2020-06-23

- Software design, selection and estimation for latent variable models

  WOMBAT

  2019-11-28

- Symbolic model formulae for linear mixed models illustrated with the analysis of agricultural data

  Department of Mathematics and Statistics, Macquarie University

  2019-10-15

- Symbolic model formulae for linear mixed models illustrated with the analysis of agricultural data

  Research School of Finance, Actuarial Studies and Statistics, Australian National University

  2019-09-16

- Statistical modelling for plant breeding trials for accurate genotype-by-environment effect predictions

  Sydney Institute of Agriculture

  2019-09-06

WORKSHOPS

- Data Wrangling with R

  2020/12

  Hosted by Statistical Society of Australia NSW Branch.

- Data Visualisation with R

  2020/11

  Co-presented with Di Cook.
  Hosted by Statistical Society of Australia VIC Branch.

- Tidyverse and R Markdown Workshop

  2019/12

  Hosted by International Biometrics Society Australasia Region.

- R Package & R Markdown Workshop

  2019/11

  Co-presented with Damjan Vukcevic.

Hosted by Statistical Society of Australia VIC Branch.

- Statistical Methods for Omics Assisted Breeding

  2018/11

  Co-presented with Gota Morota, Diego Jarquin, Malachy Campbell, Jessica Tressou, Hiroyoshi Iwata.
  Hosted by Univeristy of Tokyo.

SERVICE

- Vice President

  Statistical Society of Australia, Victoria Branch

  2020/03-2021/03

- President

  Statistical Society of Australia, Victoria Branch

  2021/03-2023/03

- Vice President

  Statistical Society of Australia, Victoria Branch

  2023/03-2024/03

- Assistant Secretary

  Statistical Society of Australia, NSW Branch

  2017/03-2018/03

- Secretary

  Statistical Society of Australia, NSW Branch

  2018/03-2020/03

- Social Media Coordinator

  International Biometrics Society, Australaisan Region

  2018/01-ongoing

- Member

  useR! 2021, Program Committee

  2021/03-2021/03

PROFESSIONAL MEMBERSHIPS

- Statistical Society of Australia
- International Biometrics Society

AWARDS & DISTINCTIONS

- ARC Industrial Transformation Training Centre

2019

Lead: Sally Cripps
$3,973,202

- R Consortium Grant

  2019

  Lead: Emi Tanaka
  $6,000

- Sydney Institute of Agriculture Research Project Grant

  2018

  Lead: Thomas Bishop
  $90,000

- SSA NSW Branch J. B. Douglas Award Prize

  2011

  $500

- Winter School Student Travel Bursaries

  2010

  $250

- Statistical Society of Australia Inc. Student Travel Grant

  2010

  $300

- Australian Postgraduate Award

  2010

  $78,750

- Dean’s List for Academic Excellence

  2008

- Tim Brown Prize II

  2008

  $275

- Barker Scholarship IV

  2008

  $750