Ryan Thompson

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Positions

Research Associate, School of Mathematics and Statistics, University of New South Wales	Jun 2022–pres.
Visiting Scientist, Data61, Commonwealth Scientific and Industrial Research Organisation	Jun 2022–pres.

Education

PhD in Econometrics and Business Statistics (submitted), Monash University	2019–2022
BCom (Hons) in Business Analytics, University of Sydney	2016–2016
BCom in Econometrics and Finance, University of Sydney	2013–2015

Research

Publications

Thompson, R. (2022). 'Robust subset selection'. *Computational Statistics and Data Analysis* 169, p. 107415.

Matsypura, D., Thompson, R., and Vasnev, A. L. (2018). 'Optimal selection of expert forecasts with integer programming'. *Omega* 78, pp. 165–175.

Preprints

Lyu, Z., Ahfock, D., Thompson, R., and McLachlan, G. J. (2023). '`gmmsslm`: Semi-supervised Gaussian mixture modeling with a missing data mechanism in `R`'. arXiv: 2302.13206.

Thompson, R., Dezfouli, A., and Kohn, R. (2023). 'The contextual lasso: Sparse linear models via deep neural networks'. arXiv: 2302.00878.

Qian, Y., Thompson, R., and Vasnev, A. L. (2022). 'Global combinations of expert forecasts'. arXiv: 2207.07318.

Thompson, R., Forbes, C. S., MacEachern, S. N., and Peruggia, M. (2022). 'Familial inference'. arXiv: 2202.12540.

Thompson, R. and Vahid, F. (2022). 'Group selection and shrinkage: Structured sparsity for semiparametric models'. arXiv: 2105.12081.

Presentations

'Sparse statistical learning with structure: Advances in computation and theory'. Invited talk, 36th PhD Conference in Economics and Business	Nov 2022
'Beyond the black box: Expressive and interpretable modelling'. Invited talk, CSIRO's Collaborative Intelligence Meet and Mingle 2022	Oct 2022
'Familial inference'. Contributed talk, 24th International Conference on Computational Statistics	Aug 2022

'Robust subset selection'. Invited talk, 15th International Conference on Computational and Financial Econometrics	Dec 2021
'Group selection and shrinkage with application to sparse semiparametric modeling'. Contributed talk, Joint Statistical Meetings 2021	Aug 2021
'Robust subset selection'. Contributed talk, Australian and New Zealand Statistical Conference 2021	Jul 2021

Teaching

Tutor, Monash University

Applied forecasting, 3rd and 5th year	Sem 1 2022
Principles of econometrics, 3rd and 5th year	Sem 2 2021
Applied forecasting, 3rd and 5th year	Sem 1 2021
Statistical thinking, 2nd and 5th year	Sem 2 2020
Applied forecasting, 3rd and 5th year	Sem 1 2020
Statistical thinking, 2nd and 5th year	Sem 2 2019
Business forecasting, 3rd and 5th year	Sem 1 2019

Tutor, University of Sydney

Quantitative business analysis, 1st year	Sem 2 2016
Quantitative business analysis, 1st year	Sem 1 2016

Awards, prizes, and scholarships

Monash Business School Student Excellence Award	Apr 2020
Australian Government Research Training Program Scholarship	Dec 2018
Monash Business School Dean's Excellence Award	Dec 2018
University of Sydney Academic Merit Prize	May 2017

Industry experience

Senior Consultant, Actuarial and Financial Risk, KPMG Australia	Oct 2018–Feb 2019
Consultant, Actuarial and Financial Risk, KPMG Australia	Feb 2017–Sep 2018

Professional service and outreach

Reviewer for Omega
Thesis examiner for University of Sydney
Organiser for UNSW Data Science Hub Year 10 Work Experience Week

Affiliations

American Statistical Association, Member
Institute of Mathematical Statistics, Member
International Institute of Forecasters, Member
Statistical Society of Australia, Member