VOLUME 2022

Research Review

The latest RSFAS research news & announcements

In This Issue

More grant success for our actuaries

Publication in the prestigious interdisciplinary journal *Management Science*

Meet Jonathan, Jed & Kassel

Email your research news to Phong.Ngo@anu.edu.au



Brrrrr...it's a cold start to winter

If you haven't noticed yet, it's freezing...the last time it was this cold, this early in winter, was perhaps in 1965 when central Canberra looked like it did the above picture...I'm pretty sure that's a picture of University Avenue (that's the Chifley library on the left and the Haydon Allen Tank on the right)!

On the bright side, this cold weather means that there isn't much better to do than to stay inside and work on research. As 70's rocker Bob Seger once said "*I write probably 80 percent of my stuff over the winter*."

So I'm super excited to see how productive our winter quarter will be; but for now, Issue 2 of *Research Review* will update you on our research achievements over the past three months. Happy reading!

New to the RSFAS family

We have two new PhD students who will commence in semester 2: Michelle Dong (Actuarial Studies) and Hannah Gallant (Statistics). Please make them feel at home.

We are excited to announce that we have appointed Jonathan Brogaard (Finance) and Jed Frees (Actuarial Studies/Statistics) as fractional professors. Jonathan will visit us for four weeks a year for the next three years. His first visit with us will start from the 18th of July 2022. Jed recently visited us for a short period, we look forward to future visits from Jed. You can read more about Jonathan and Jed below.





Jonathan Brogaard

Jonathan Brogaard is the Kendall D. Garff Chaired Professor in the Finance department at the University of Utah's David Eccles School of Business. His research interests focus on market microstructure and empirical asset pricing to examine the impact of automated and high-speed trading on equity and commodity markets. This work has been published in the top finance journals, including, the Journal of Finance, the Journal of Financial Economics, and the Review of Financial Studies. You can find out more about Jed from his website or check out this recent Jonathan here.

Edward (Jed) Frees

Edward W. (Jed) Frees is a professor in the Risk and Insurance Department of the Wisconsin School of Business. He is the Hickman Larson Chair of Actuarial Science. His research interests are in actuarial science, regression and business forecasting, and panel data. Jed is a Fellow of the Society of Actuaries since 1986 and was elected a Fellow of the American Statistical Association in 1997. Today, he is the only individual to be a Fellow of both organizations. You can find out more about interview he gave to the Society of Actuaries.

New to the RSFAS family

Finally, we also welcome post-doctoral fellow **Kassel Hingee** (Statistics) into the RSFAS family. Kassel has kindly written a great bio to introduce himself to you:

"I recently started working with the Janice Scealy and Andrew Wood on statistical methods for data with non-Euclidean geometries. My background is in spatial statistics (from Adrian Baddeley and Gopalan Nair), remote sensing (from Peter Caccetta) and mathematics (undergrad here at ANU!).





I've recently been working with ecologists at the Fenner School developing a 62-species bird occupancy model. One of the outputs is a beautiful interactive R Shiny app <u>BirdCast</u>. I've also got a package on CRAN, <u>lacunaritycovariance</u>, from my PhD research.

So far, with Janice and Andrew, I've been preparing an R package for compositional data analysis (and more), which has involved lots of interfacing C++ with R. I'm looking forward to getting my head around other difficult structures. In the future I'm hoping I can also find collaborative applications in climate or soil.

I'll be here until 2025 and hopefully longer. My desk is in room 4.21 of building 26C. You'll have good luck catching me via email kassel.hingee@anu.edu.au and I'm very amenable to video chats. I'll be working 4 days a week and I'd love to hear from you. I'll also be presenting in the statistics seminar series on September 1st."

Welcome Kassel! Please drop by his office and say hello...as always, new staff have to buy the first round of coffees!

Visiting us soon

We have a very active visitor program. These visits can be one off, on-going but ad-hoc or more formal fractional appointments as with Jonathan Brogaard. If you know of someone who is interested in visiting and contributing to our research community, please let Steve Sault or myself know and we will see if we can make it happen! Below is a list of confirmed visitors to RSFAS over the next 12 months (that I know of).

Iain Johnstone

Professor of Statistics, Stanford University Visiting us 16 July to 27 July



Denis Sosyura

Professor of Finance, Arizona State University Visiting us 22 November to 4 December

Jonathan Brogaard

Professor of Finance, University of Utah Visiting us 18 July to 13 August



Ron Giammarino Professor of Finance, U. British Columbia Visiting us 5 February to 2 March





Media coverage

Geoff Warren was featured in Investor Strategy News, "'It's not an automatic win': Why size won't come easily to super", 7 April 2022. You can read the complete piece here.

INVESTOR STRATEGY *NEWS*

Congratulations Geoff!



Grant success

Adam Butt, Gaurav Khemka, William Lim, and Geoff Warren were awarded \$44,767 by the Society of Actuaries for their project titled Investment Risk Metrics for Retirees and/or Considerations of Lifetime Income in Portfolio Design.

Congratulations Adam, Gaurav, William and Geoff!

Awards

Luca Maestrini was awarded the Diamond Jubilee Fellowship by the Statistical Society of Australia. He will use this fellowship to visit the Department of Statistical Sciences of University of Padua in Italy

Congratulations Luca!



Forthcoming events

We will host the ANU-FIRN Banking & Financial Stability Meeting on 20-21 September. The keynote speaker is Bo Becker (Stockholm School of Economics). The call for papers closes 8 July and the program will follow soon. This year's meeting will also include an Early Career Researcher Workshop titled How to Publish and Boost Your Career featuring Antje Berndt, Bruce Grundy, Kristle Cortes and Phong Ngo. The meeting chair is Phong Ngo.

We are hosting the inaugural *Conference on Women's Safety & Financial Security* on 20-21 October. This college wide, interdisciplinary, event is in collaboration with the Centre for Women's Economic Safety and will cover topics like women's (economic) empowerment, financial abuse and domestic violence. Our VC, Brian Schmidt, will open the event which features Judy Postmus (Professor and Dean of the School of Social Work, University of Maryland) as the keynote speaker. A complete list of speakers for the event appears at the end of this issue. Registration will open in August. The conference chair is Phong Ngo.

Finally, we are hosting the *Australasian Actuarial Education & Research Symposium* on 24-25 November. This is an annual international actuarial conference, where researchers, industry practitioners and graduate students from different parts of the world meet and discuss future directions of actuarial research and teaching. The symposium chair is Adam Butt.









Planning for the *Summer Research Camp* is almost complete. The camp will be held on December 1-2 at the Hyatt Hotel. There will be a welcome dinner at Monster Kitchen & Bar on Wednesday 30th November to kick off the event. There will also be networking events (wine or art gallery tour) and a conference dinner on 1st December.

The finance group have secured Randall Morck (U. Alberta) as the finance keynote speaker. Other confirmed finance presenters include Alminas Zaldokas (HKUST), Joan Farre-Mensa (U. Illinois), Ben Charoenwong (NUS), Elvira Sojli (UNSW), Marina Gertsberg (U. Melbourne), Phil Drummond (Monash U.), and Isaac Pan (Sydney U.)

The statistics program will feature Steve Marron (U. North Carolina) as the keynote speaker as well as Karthik Bharath (U. Nottingham), Zhao Ren (U. Pittsburgh), Heather Battey (Imperial College London), Lin Zhenhua (NUS), Leah South (QUT), Boris Berengar (UNSW), Andriy Olenko (La Trobe U.), Jiti Gao (Monash U.), and Aurore Delaigle (Melbourne U.).

Finally, speakers for the Actuarial Science program include..... eh hem...Tim??? <cough>

External engagement & service

Antje Berndt will present her paper "*Risk Aversion in Corporate Bond Markets*" at the 2022 China International Conference in Finance (CICF)

Kelly Liu presented "Is Stock Index Membership for Sale?" at the 2022 Asian Bureau of Finance and Economic Research (ABFER)

Bruce Grundy discussed "*Is Stock Index Membership for Sale*?" at the 2022 Asian Bureau of Finance and Economic Research (ABFER). I know, right?!?! Haha

Le Zhang has been invited to give seminar talks at the Queensland University of Technology and the University of Sydney.

Phong Ngo was appointed Associate Editor at the Australian Journal of Management.

Geoff Warren presented

- "Scale Diseconomies and Capacity in Fund Management" at the FIRN-UQ Asset Management Meeting 2022
- "Exploring Big Ideas: Your Future, Your Super Anniversary", Conexus Institute Webinar 2022
- "Scale benefits in superannuation funds" at Conexus Fiduciary Investors Symposium 2022
- "Valuation Master Class" at the Financial Management Association of Australia Webinar 2022

Janice Scealy presented

- "*Score matching for microbiome compositional data*" at Advances in Directional Statistics: A Celebration of Kanti Mardia's 85th Birthday Workshop
- "Score matching for microbiome compositional data" at the University of New South Wales

Sapphasak Chatchawan presented

- "The Effects of Central Bank Communication on Financial Markets: A Factor-Augmented Vector Autoregressive Approach" at the 15th National Conference of Economists: Adaptation of Economics in the Next Normal
- "Common Risk Factors and Cross-section of Expected Returns of Digital Currencies" at the 15th National Conference of Economists: Adaptation of Economics in the Next Normal

Luca Maestrini will present

- "Sparse Linear Mixed Model Selection via Streamlined Variational Bayes" at the 2022 Conference of the International Society for Bayesian Analysis
- "Variational Approximations for Structural Equation Models" at the 31st International Biometric Conference

Well done Antje, Kelly, Bruce, Le, Phong, Geoff, Janice, Sapphasak, and Luca!



PhD Outcomes

Congratulations to **Syaza Zein** (Actuarial Studies), **Shuang Chen** (Finance), and **Swen Kuh** (Statistics) who have passed the thesis examination process and will soon graduate with their PhDs! Now for the "easy" task of finding a job!

The following three students have recently submitted their dissertations for examination: **Donghui Wu** (Finance), **Sayla Siddiqui** (Finance), and **Thao Hoang** (Finance). While you can't party just yet, congratulations on getting this far!

Publications

The statistics group have taken a break from publishing in *JASA* and given the rest of us a chance to step out from behind their shadow.

So congratulations to Ilya Dergunov, Bruce Grundy, Adan Butt, Geoff Warren, Gaurav Khemka, William Lim, Luca Maestrini, Yanrong Yang and Yuang Gao on their publications (full details on the next page)!

Special mention Ilya who published a piece in the prestigious interdisciplinary journal *Management Science*.



Publications (in alphabetical order according to first RSFAS author)

- Butt, A., Khemka, G., and Warren, G.J. (2022) "Heterogeneity in optimal investment and drawdown strategies in retirement", forthcoming in the *Pacific-Basin Finance Journal* https://doi.org/10.1016/j.pacfin.2022.101798
- Dergunov, I., Meinerding, C., and Schlag, C. (2022) "Extreme inflation and time-varying Expected consumption growth" forthcoming in *Management Science* https://doi.org/10.1287/mnsc.2022.4451
- Gao, Y., Shang, H. L., Yang, Y. (2022). "Factor-augmented smoothing model for functional data" forthcoming in *Statistica Sinica* https://doi.org/10.5705/ss.202021.0223
- Grundy, B., and Li. (2022) "The effect of investor sentiment and the structure of shareholder ownership on corporate investment" forthcoming in the *International Journal of Managerial Finance* https://doi.org/10.26181/17303969.vl
- Grundy, B. (2022) "Merton H. Miller (1912-2006)" in *The Palgrave Companion to Chicago Economics*, Robert A Cord Editor, Springer International, New York: USA
- Khemka, G., Pitt, D., and Zhang, J. (2022) "Inference for univariate grouped data from actuarial application" forthcoming in the *North American Actuarial Journal*
- Donnelly, C., **Khemka**, G., and Lim, W. (2022) "Investing for retirement: Terminal wealth constraints or a desired wealth target?" *European Financial Management*, 1–25. https://doi.org/10.1111/eufm.12351
- Dang, K.-D. and **Maestrini, L.** (2022) "Fitting structural equation models via variational approximations" *Structural Equation Modeling: A Multidisciplinary Journal*, 1-15 https://doi.org/10.1080/10705511.2022.2053857
- Collins, S., Maestrini, L., Ueland, M. and Stuart, B. (2022) "A preliminary investigation to determine the suitability of pigs as human analogues for post-mortem lipid analysis" *Talanta Open*, 5, 1–11 https://doi.org/10.1016/j.talo.2022.100100

Conference on Women's Safety and Financial Security October 20-21, 2022

Venue

Manning Clark Hall Ground Floor, Cultural Centre, University Ave, Kambri, The Australian National University

Speakers

- Judy Postmus (Keynote Speaker): Professor and Dean of the School of Social Work, University of Maryland
- Laura Johnson: Assistant Professor in the School of Social Work, Temple University
- Jan Breckenridge: Professor and Head of the School of Social Sciences and Co-Convenor of the UNSW Gendered Violence Research Network, University of New South Wales
- Heather Douglas: Professor of Law, University of Melbourne
- Hayley Boxall: Research Manager at the Australian Institute of Criminology
- Sofia Amaral: Economist at the ifo Institute, Ludwig Maximilian University of Munich
- Bilge Erten: Associate Professor of Economics and International Affairs, Northeastern University
- Ana Tur-Prats: Assistant Professor of Economics, University of California Merced
- Yoo-Mi Chin: Associate Professor of Economics, Baylor University
- Samantha Rawlings: Associate Professor of Economics, University of Reading
- Kristin Diemer: Associate Professor in the Department of Social Work, University of Melbourne
- Kate Fitz-Gibbon: Associate Professor of Criminology, School of Social Sciences, Monash University and Director of the Monash Gender and Family Violence Prevention Centre

Policy Panel

- Rebecca Glenn (Chair): Founder and CEO of the Centre for Women's Economic Safety
- Catherine Fitzpatrick: National Domestic, Family and Sexual Violence Commissioner (To Be Confirmed)
- Leanne Ho: CEO, Economic Justice Australia
- 'Kristen': IPV Survivor and Lived Experience Advocate