# Anton H. Westveld

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#### Affiliation

Jan 2017 - Present Senior Lecturer (Level C) in Statistics (Australian System), Research School of Finance, Actuarial Studies and Statistics (RSFAS), College of Business and Economics, Australian National University, Canberra, ACT, AUS.

- Convenor of the ASA DataFest at ANU [2021 Present]
- CBE representative on the CHM and COS Education Committees [2020 Present]
- RSFAS Honours Program Convenor [2015 2019]

Aug 2023 - Present Affiliate Associate Professor, Department of Statistical Sciences and Operations Research, Virginia Commonwealth University, Richmond, VA, USA.

#### Education

2007 **Ph.D. in Statistics**, University of Washington, Seattle, WA, USA.

M.A. in Applied Statistics & Applied Economics, University of Michigan, Ann Arbor, MI, USA.

B.A. in Economics & Political Science, University of Michigan, Ann Arbor, MI, USA.

#### Work Experience

Jan 2013 - Dec 2017 Associate, Statistics Laboratory @ the Bio5 Institute & Statistics Graduate Inter-Disciplinary Program (GIDP), University of Arizona, Tucson, AZ, USA.

Jul 2014 - Dec 2016 Lecturer (Level B) in Statistics, Research School of Finance, Actuarial Studies and Statistics, College of Business and Economics, Australian National University, Canberra, ACT, AUS.

Jan 2013 - May 2014 Assistant Professor of Statistics, Faculty of ESTEM, University of Canberra, Canberra, ACT, AUS.

Statistician and Regular Statistics Faculty, Statistics Laboratory @ the Bio5 Institute Sep 2011 - Nov 2012 & Statistics Graduate Inter-Disciplinary Program (GIDP), University of Arizona, Tucson, AZ, USA.

Jul 2007 - Aug 2011 Assistant Professor of Statistics, Department of Mathematical Sciences, University of Nevada, Las Vegas, NV, USA.

> - Faculty Member for the National Science Foundation sponsored Undergraduate Biomathematics Program at UNLV; Quantitive Social and Legal Sciences Project Leader for the Center for Applied Mathematics and

Jan - Jul 2007 Post Doctoral Fellow, Center for Empirical Research in the Law, Washington University, St. Louis, MO, USA.

## Visiting Positions

Aug 2019 - Feb 2020 Visiting Faculty, Department of Statistics, College of Natural Sciences, University of Texas, Austin, TX, USA.

Jul - Aug 2019 Visiting Faculty, Center for Statistics and the Social Sciences, University of Washington, Seattle, WA, USA.

- Dec 2017 **Visiting Faculty**, Department of Statistics and Data Sciences, College of Natural Sciences, University of Texas, Austin, TX, USA.
- May Jul 2010 Visiting Researcher, Division of Mathematics, Informatics, and Statistics, CSIRO, Canberra, ACT, AUS.
  - Mar 2010 Visiting Researcher, Division of Mathematics, Informatics, and Statistics, Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO), Canberra, ACT, AUS.
- Jun Jul 2008 Visiting Researcher, Division of Computational Biology, Fred Hutchinson Cancer Research Center, Seattle, WA, USA.

### Continuing Education

- May 2021 Modern Leadership: Reflections and Tools for the Values-Based Leader. William & Mary Washington Center. Washington, D.C., USA
- Jul 2018 Preparing Statisticians for Leadership: How to See the Big Picture and Have More Influence. JSM. Vancouver, CAN

### Peer Reviewed Papers

- Jiali Wang<sup>#</sup>, **A.H. Westveld**, A.H. Welsh, M. Parker, B. Loong. Analysis of survey on menstrual disorder among teenagers using Gaussian copula model with graphical lasso prior. *PLoS ONE*. [DOI: 10.1371/journal.pone.0248340].
- 2017 M.B. Lundy, C.A. Standley, **A.H. Westveld**. Curricular Reform in Two Medical School Tracks and the Impact on USMLE Scores. *Medical Science Educator*. [DOI: 10.1007/s40670-016-0368-y].
- 2014 B.L. Hurwitz, **A.H. Westveld**, J.R. Brum, and M.B. Sullivan. Modeling ecological drivers in marine viral communities using comparative metagenomics and network analyses. *Proceedings of the National Academy of Sciences of the USA*. Vol. 111, No. 29, pp. 10714–10719. [DOI: 10.1073/pnas.1319778111].
- 2014 G.S. Chiu and A.H. Westveld. A Statistical Social Network Model for Consumption Data in Trophic Food Webs. Special issue on Modern Statistical Methods in Ecology, *Statistical Methodology* Vol. 17, pp. 139–160. [DOI: 10.1016/j.stamet.2013.09.001].
- 2013 A. Taylor, **A.H. Westveld**, M. Szkudlinska, P. Guruguri, E. Annabi, A. Patwardhan, T.J. Price, and H. Yassine. The Use of Metformin is Associated with Decreased Lumbar Radiculopathy Pain. *Journal of Pain Research*. Vol 2013, No. 6, pp. 755–763. [DOI: 10.2147/JPR.S52205].
- 2013 **A.H. Westveld** and P.D. Hoff. Modeling of the Learning Process in Centipede Games. *Stat.* Vol. 2, No. 1, pp. 242–254. [DOI: 10.1002/sta4.32].
- 2011 G.S. Chiu and A.H. Westveld. A Unifying Approach for Food Webs, Phylogeny, Social Networks, and Statistics. *Proceedings of the National Academy of Sciences of the USA*. Vol. 108, No. 38, pp. 15881–15886. [DOI: 10.1073/pnas.1015359108].
- 2011 **A.H. Westveld** and P.D. Hoff. A Mixed Effects Model for Longitudinal Relational and Network Data, with Applications to International Trade and Conflict. *Annals of Applied Statistics*. Vol. 5, No. 2A, pp. 843–872. [DOI: 10.1214/10-AOAS403].
- 2011 G.S. Chiu, P. Guttorp, **A.H. Westveld**, S.A. Khan, and J. Liang. A Latent Health Factor Index Modelling Approach via Generalized Linear Mixed Models, with Application to Ecological Health Assessment. *Environmetrics*. Vol. 22, Issue 3, pp. 243–255. [DOI: 10.1002/env.1055].

2005 T. Gneiting, A.E. Raftery, A.H. Westveld, and T. Goldman. Calibrated Probabilistic Forecasting Using Ensemble Model Output Statistics and Minimum CRPS Estimation. Monthly Weather Review. Vol. 133, No. 5, pp. 1098–1118. [DOI: 10.1175/MWR2904.1].

# Represents a student whom I advise(d).

### Peer Reviewed Conference Proceedings Papers

- 2018 C.H. Chien#, A. Haller, and **A.H. Westveld**. Firm Business Networks. In the Joint Proceedings of the International Workshops on Contextualized Knowledge Graphs, and Semantic Statistics co-located with 17th International Semantic Web Conference (ISWC 2018).
- 2013 G.S. Chiu and A.H. Westveld. Physical Statistics or Statistical Physics? A Brief Overview of Bayesian Melding. In Piantadosi, J., Anderssen, R.S. and Boland J. (eds) MODSIM2013, 20th International Congress on Modelling and Simulation. Modelling and Simulation Society of Australia and New Zealand, December 2013, pp. 2506–2512. ISBN: 978-0-9872143-3-1.

#### Other Peer Reviewed Items

G.S. Chiu and A.H. Westveld. Integrating Food Webs, Phylogeny, Social Networks, and Statistics. First Global Conference on Research Integration and Implementation. Digital Poster #602.

### Conference Proceedings Papers

- 2011 M.V. Myroshnychenko# and A.H. Westveld. Analysis of Morris Water Maze Data with Bayesian Statistical Methods. In *UNLV McNair Scholars Institute Annual Report 2011-2012*. University of Nevada Las Vegas. Poster associated with the paper [joint with Dr. Jefferson Kinney].
- N.M. Jensen, A.D. Martin, and A.H. Westveld. Foreign Direct Investment: A Longitudinal Social Network Approach. Presented at the Political Networks Conference, Duke University [Stored at OpenSIUC].
- 2009 K.M. Quinn and A.H. Westveld. Bayesian Inference for Semi-parametric Quantal Response Equilibrium Models. In JSM Proceedings, Section on Bayesian Statistical Science. Alexandria, VA: American Statistical Association. 2919-2933.
- 2005 A.H. Westveld and P.D. Hoff. Statistical Methodology for Longitudinal Social Network Data. Presented at the Joint Statistical Meeting and the American Political Science Association Meeting.
- 2005 B. Letnes and **A.H. Westveld**. Transnational Corporations, Economic Development and Human Rights: On the Importance of Assets and Institutions. Presented at the 2005 American Political Science Association Meeting.

### Technical and Client Reports

- 2019 G.S. Chiu, S. Treier, A.H. Westveld, N.Erskine. Progress Report on 'Evidence-based inference for network relations using latent space network modelling: Case studies from the Australian political landscape'. Report prepared for ANU College of Arts and Social Sciences. Australian National University: Canberra
- 2012 K. Macatangay, A.H. Westveld, B. Kunkel. Intervening for Success. Report prepared for Clark County District Attorney, Family Support Division and the U.S. Department of Health and Human Services.

### Working Papers

- 2023 S. Marin<sup>#</sup>, B. Loong, and **A.H. Westveld**. BOB: Bayesian Optimized Bootstrap with Applications to Gaussian Mixture Models. arXiv Statistics Methodology [arXiv:2311.03644].
- 2020, 2023 F.S. Kuh<sup>#</sup>, G.S. Chiu, and **A.H. Westveld**. Latent Causal Socioeconomic Health Index. arXiv Statistics Methodology [arXiv:2009.12217]. [2023 Revision Submitted].
  - 2019 Chien-Hung Chien#, A.H. Welsh, and **A.H. Westveld**. Australian Business Networks. *ABS Research Paper* [1351.0.55.063].
  - 2019 F.S. Kuh<sup>#</sup>, G.S. Chiu, and **A.H. Westveld**. Modeling National Latent Socioeconomic Health and Examination of Policy Effects via Causal Inference. arXiv Statistics Applications [arXiv:1911.00512].
  - 2019 J. Wang<sup>#</sup>, A.H. Westveld, B. Loong, and A.H. Welsh. An Imputation model by Dirichlet Process Mixture of Elliptical Copulas for Data of Mixed Type. arXiv Statistics Methodology [arXiv:1910.05473].
  - 2018 J. Wang<sup>#</sup>, A.H. Westveld, A.H. Welsh, M. Parker, and B. Loong. Analysis of Survey on Menstrual Disorder among Teenagers using Gaussian Copula Models with Graphical Lasso Prior. [Under Review].
  - 2017 J. Wang#, B. Loong, A.H. Westveld, and A.H. Welsh. A Copula-based Imputation Model for Missing Data of Mixed Type in Multilevel Data Sets. arXiv Statistics Methodology [arXiv:1702.08148].

### Competitive Grants & Other Funding

- 2022 Statistical Consultant (Bayesian methodology) U.S. Greater Amberjack Research Program Bayesian Specialist at Virginia Institute of Marine Science (William & Mary).
  - 2019 Successful bid for a contract at the Australian Institute of Health and Welfare for a statistics Instructor and data science workshop at AIHW contract.
  - 2018 I am an international collaborator of the SFI Centre for Research Training in Foundations of International Data Science (the project was funded in 2019).

    Collaborator
    - 2018 Evidence-based inference for network relations using latent space network modelling: Case Co-PI studies from the Australian political landscape (\$34,000 from the ANU RSSS Cross College Grant [http://rsss.cass.anu.edu.au/research/cross-college-grant]); In collaboration with the other PIs: Dr. Shawn Treier and Dr. Grace Chiu.
    - 2016 Sustainable Farming Practices (\$2 million AUD from the Ian Potter Foundation); In collabo-Co-PI ration with Professor David Lindenmayer (PI) et al., including Associate Professor Emma Schultz, Dr. Grace Chiu (CBE Co-PIs).
    - 2016 Sustainable Farming Practices Pilot project 1 year grant (\$70,000 AUD); In collaboration Co-PI with Professor David Lindenmayer (PI) et al., including Associate Professor Emma Schultz, Dr. Grace Chiu (CBE Co-PIs).
  - 2016 2018 IBISWorld, Melbourne, Australia 3 year grant (\$150,000 AUD); Part of this grant was used Co-I to create the IBISWorld Ph.D. Scholarship awarded to Ms. F. Swen Kuh, who is jointly advised by myself and Dr. Grace Chiu (PI).
  - 2009 2012 Clark County District Attorney's Office Family Support Division, Nevada 3 year Sub-grant PI (\$48,050.50); Child Support Policies via Randomized Experiments (Evidenced Based Policy).
  - 2009 2012 Natural Sciences and Engineering Research Council (NSERC) of Canada Discovery Grant Sub-grant PI "Health indices for aquatic ecosystems" (\$5,000).
    - 2008 New Researchers' US Federal Stimulus Award (\$10,000)

### Research Advising & Mentoring

Co-Primary Advisor

2023 - Present Santiago Marin Ardila, Ph.D. student in Statistics, RSFAS, ANU.

2021 - 2022 Chris Malone, Master's in Statistics, RSFAS, ANU. Graduated 2022.

Co-Primary Advisor • Project: Bayesian Inference of Eradication of Incipient Tephritid Fruit Fly

Reading Committee

2020 - Present Malcolm Wolff, Ph.D. student in the Department of Statistics, University of Washington,

Member

• Project: Statistical modelling of human movement, social activity spaces, and networks.

2016 - 2022 Fui Swen Kuh, IBISWorld Ph.D. Scholar in Statistics, RSFAS, ANU. Graduated 2022.

- Co-Primary Advisor Project: A holistic Bayesian framework for modelling latent socio-economic health..
  - The work has been presented at: Bayes on the Beach (2017 Conference in Gold Coast, Queensland, AUS); Joint Statistical Meeting (2018 Conference in Vancouver, BC, CAN); University of Auckland (2019 Statistics Seminar in New Zealand); William & Mary (2019 Applied Mathematics Seminar).
  - Winner of the Inaugural Poster competition of the ASA Social Statistics Section JSM 2018.
  - Research Fellow (Level B) at Monash University.
  - LinkedIn: https://www.linkedin.com/in/fuiswenkuh/

2016 - 2021 Joseph Chien, Ph.D. student in the Mathematical Sciences Institute, ANU.

- Associate Advisor Project: Using administrative data to gain insights into microdrivers of productivity.
  - Director (data integration, access and confidentiality) at the Australian Bureau of Statistics.
  - LinkedIn: https://www.linkedin.com/in/joseph-chien-hung-chien-6a5184a9/

Co-Primary Advisor

2015 - December 2018 Jiali Wang, Ph.D. student in Statistics, RSFAS, ANU. Graduated December 2018.

- Project: Recent developments of copula-based models to handle missing data of mixed-type in multivariate analysis.
- Recipient of the 2018 Dennis Trewin Prize presented by the Statistical Society of Australia Canberra
- Senior Principal Biostatistician at Novartis.
- LinkedIn: https://www.linkedin.com/in/jiali-wang-89244513b/

2017 Mark Dawkins, Honours student in Statistics, RSFAS, ANU.

Co-Primary Advisor

- Graduated with H1 Honours.
- Thesis: Melded Bayesian Inference for Stochastic Theoretical Models with Applications in Agent Based Modelling.
- CBE write-up about presenting the thesis at the Joint Statical Meeting (2018 Conference in Vancouver, BC, CAN). (https://www.cbe.anu.edu.au/about/content/news/2018/mark-dawkins-graduation/)
- Zen Energy, Australia
- LinkedIn: https://www.linkedin.com/in/mark-dawkins-479762122/

2016 Jaron Lee, Honours student in Statistics, RSFAS, ANU.

- Primary Advisor Graduated with H1 Honours.
  - Recipient of an ANU University Medal.
  - Thesis: A Variational Bayes Approach to Clustered Latent Preference Models for Directed
  - Presented his thesis work at the Joint Statistical Meeting (2018 Conference in Vancouver, BC, CAN).
  - Employed at Hivery 2016-2018.
  - Ph.D. student in Computer Science at Johns Hopkins University since August 2018.
  - LinkedIn: https://www.linkedin.com/in/jaron-lee-a8733665/

Nov - Jan 2015 Fui Swen Kuh, ANU Summer Research Scholar from the Department of Statistics, University Primary Advisor of Auckland.

- Project: Social Network Analysis on Food Web and Dispute Data
- Presented the work at the University of Auckland 2015 Postgraduate Poster Competition.
- The IBISWorld Ph.D. Scholar in Statistics at ANU since 2016.

Jul - Aug 2014 Seoyoon Cho, CSIRO Industrial Trainee from the Department of Statistics, Korea University.

Co-Advisor • Project: Modeling Network Data Using PyStan

• Ph.D. student in Biostatistics at the University of North Carolina, USA since August 2018.

Jul - Aug 2014 Hyangki Lee, CSIRO Industrial Trainee from the Department of Statistics, Korea University.

Co-Advisor

• Project: Modeling Network Data Using PyStan • Recently obtained a master's degree in Statistics.

Aug 2010 - 2012 Yaroslav Mukhin, M.S. student in Statistics, University of Nevada, Las Vegas.

- Mentor Project: Inference for the Solow Growth Model: A Bayesian Melding Approach
  - Post Doctoral Fellow @ the MIT Institute for Data, Systems, and Society, USA.
  - LinkedIn: https://www.linkedin.com/in/yaroslav-mukhin-6b7890229/

Primary Advisor

Aug 2010 - 2012 Maxym Myroshnychenko, NSF Biomathematics Scholar and a UNLV McNair Scholar, University of Nevada, Las Vegas.

- Project: Analysis of Morris Water Maze Data with Bayesian Statistical Methods
- Published in UNLV McNair Scholars Institute Annual Report 2011-2012. University of Nevada Las Vegas.
- Postdoctoral Fellow @ the National Institute of Health, USA.
- LinkedIn: https://www.linkedin.com/in/maxym-myroshnychenko-b79b2b51/

### Internship (Consulting) Advising & Mentoring

Semester 1, 2021 Rory Williams. ANU College of Business and Economics Internship Program.

Advisor • Joint internship through Australian Department of Social Services.

Semester 1, 2019 James Kondilios. ANU College of Science Internship Program.

• Joint internship through Airservices Australia. Advisor

Semester 2, 2017 Jizhi Li. ANU College of Business and Economics Internship Program.

Advisor • Joint internship through the National Disability Insurance Agency, Australia.

Semester 2, 2017 Yiran Yao. ANU College of Business and Economics Internship Program.

Advisor • Joint internship through the National Disability Insurance Agency, Australia.

# Courses Taught, Convened<sup>+</sup>, and Developed<sup>\*</sup>

2021 Statistics for Data Analysis A & B<sup>+\*</sup>; ANU Micro-credential Course [professionals].

Statistical Learning<sup>+\*</sup>: ANU STAT 3040/7040 [undergraduate and graduate - some years 2015 - 2017, 2021 graduate and undergraduate were not jointly taught]. 2023

Statistical Inference<sup>+</sup>; ANU STAT3013/8027 [undergraduate and graduate]. 2014 - 2020, 2023

> Regression Modelling + Introduction to GLMs<sup>+</sup>; ANU STAT 2008/2014/6014 [undergraduate and graduate.

Regression Modelling<sup>+</sup>; ANU STAT 2008/6038 [undergraduate and graduate].

(944 students enrolled)

2016 - 2018 (each Managing the Research Process<sup>+\*</sup>; ANU STAT 4010 [honours]. semester)

2014 (1x) Introduction to Mathematical Statistics<sup>+</sup>; ANU STAT2001/6039 [undergraduate and graduate.

2014 (1x) **Econometrics**<sup>+</sup>; UC 6541/6551 [undergraduate and graduate].

2013 - 2014 (3x) **Problem Evaluation and Resolution**<sup>+</sup>; UC 8730 [undergraduate].

2013 (2x) Introduction to Business Statistics<sup>+</sup>; UC 5123/6275 [undergraduate and graduate].

2012 Aided in developing a course on **network data**\* for the School of Information: Science, Technology, and Arts (SISTA). UA [undergraduate].

- Applied Statistics for the Biological Sciences<sup>+</sup>; UNLV STAT 391 [undergraduate]. 2008 - 2010 (4x)
- Experimental Design and Analysis<sup>+</sup>; UNLV STAT 713 [graduate]. 2008 - 2010 (2x)
  - 2009 (1x) Bayesian Data Analysis<sup>+\*</sup>; UNLV STAT 753 [graduate].
- 2008 2011 (3x) Independent study for **Bayesian Data Analysis**<sup>+\*</sup>; UNLV STAT 753 [graduate].
- Regression Analysis II<sup>+\*</sup> (GLMs, LMMs, GLMMs); UNLV STAT 762 [graduate]. 2010 - 2011 (2x)
  - 2008 (1x) Statistical Decision Theory<sup>+</sup>; UNLV Stat 765 [graduate].
  - 2007 (1x) Multivariate Analysis<sup>+</sup>; UNLV Stat 764 [graduate].

Note: Australian National University (ANU), University of Arizona (UA), University of Canberra (UC), University of Nevada, Las Vegas (UNLV).

#### Awards

2011 Young Statisticians' Meeting (satellite meeting of the ISI), Dublin, IRL.

Refereed poster - Received a best poster award.

- Title: Dirichlet Processes for Quantal Response Equilibrium Models - Examination of Pegged Exchange Rate Policies.

2008 Political Networks Conference, Harvard University, Cambridge, MA, USA.

- Refereed poster Received a best poster award.
  - Title: A Bayesian Mixed Effects Model for Longitudinal Social Network Data.
  - 2007 Joint Statistical Meeting, Salt Lake City, UT, USA.

Invited - Received a student paper competition award from the ASA Section on Bayesian Statistical Science.

- Title: A Bayesian Mixed Effects Model for Longitudinal Social Network Data.

### Selected Professional/Service Activities

2019 - present Associate Editor of the Journal of the American Statistical Association.

2015 - June 2019 Honours Convenor

• 2015 Graduating students: Finance (1), Actuarial (3), Statistics (3).

- 2016 Graduating students: Finance (1), Actuarial (6), Statistics (5).
- 2017 Graduating students: Finance (1), Actuarial (3), Statistics (4).
- 2018 Graduating students: Finance (5), Actuarial (3), Statistics (7).
- 2019 Graduating students: Finance (7), Actuarial (3), Statistics (7).

2019, January Ran the statistics/data science workshop for the National Youth Science Foundation of NYSF Australia

2017-2018 Chaired the hiring committee twice for a post doctoral fellow for the Sustainable Farming Initiative. ANU

Associate Editor of the quarterly bulletin of the International Society for Bayesian Analysis 2016 - present (ISBA). ISBA

Council member of the Canberra branch of the Statistical Society of Australia. 2015 - 2017 SSA

Reviewer for: Advances in Data Analysis and Classification, the Annals of Applied Statis-2007 - present tics, British Journal of Mathematical and Statistical Psychology, the Journal of Graphical and Computational Statistics, PLoS ONE, Political Analysis, Proceedings of the National Academy of Science, Social Networks.

2011 Reviewer for the US National Science Foundation, Directorate for Biological Sciences. NSF

- 2013 Organized an invited session for the Joint Statistical Meeting titled "Sampling and Model
- ASA Based Inference for Network Data".
- 2008 Organized an invited session for the Joint Statistical Meeting titled "Political Science,
- ASA Statistical Science, and Graphics".
- 2007 Chair for the panel on non-parametric statistical methods for the Joint Statistical
- ASA Meeting.
- 2007 Discussant for a presentation on statistical social network analysis for the Political
- APSA Methodology Meeting.
- 2007 Chair and discussant for the panel on time series modeling for the Midwest Political
- APSA Science Association.
  - 2005 Chair and discussant for the panel on causality for the American Political Science Association
- APSA Meeting.
- 2007 2011 Committees: the Ph.D. qualifying exam committee every year (designed and graded exams
  - UNLV for several subjects over the period), the statistics faculty committee every year, and the undergraduate studies committee one year, a hiring committee one year.

#### Professional Societies

- 2002 Present American Statistical Association.
- 2002 Present American Political Science Association.
- 2010 Present Statistical Society of Australia.
- 2017 Present International Society for Bayesian Analysis.

#### Recent Invited Presentations

- Nov 2023 A Bayesian Melding Approach for Stochastic Agent-Based Models. Virginia Commonwealth University, USA.
- Nov 2023 A Bayesian Melding Approach for Stochastic Agent-Based Models. Virginia State University, USA.
- July 2021 A Bayesian Melding Approach for Stochastic Agent-Based Models. International Statistical Institute 63rd World Congress.
- August 29, 2018 Bayesian Melding From the Deterministic Case to the Stochastic Case. College of Public Health, Biostatistics Section, University of Arizona, USA.
  - May 18, 2018 Bayesian Melding From the Deterministic Case to the Stochastic Case. Department of Econometrics and Business Statistics, Monash University, AUS.
  - May 18, 2018 Statistically, It's all Fun and Games. NUMBATS, Monash University, AUS.
  - Dec 15, 2017 Bayesian Melding From the Deterministic Case to the Stochastic Case. Department of Statistics and Data Sciences, University of Texas, Austin, TX, USA.

#### Recent Student Invited Presentations

- Oct 25, 2022 F.S. Kuh# [presenter], G.S. Chiu, and A.H. Westveld. SSA Canberra Dennis Trewin Prize Presentation. Statistical Society of Australia Canberra Branch, Canberra, AUS. Received second place.
  - Chien-Hung (Joseph) Chien<sup>#</sup> [presenter], **A.H. Westveld**, A.H. Welsh. Australian Business Networks. Australian Statistical Conference.
- Nov 11, 2019 F.S. Kuh# [presenter], G.S. Chiu, and **A.H. Westveld**. Modelling national latent socio-economic health with causal inference. Department of Mathematics (Applied Mathematics Seminar), William & Mary, USA.
- Nov 11, 2019 F.S. Kuh<sup>#</sup> [presenter], G.S. Chiu, and **A.H. Westveld**. Modelling national latent socio-economic health with causal inference. Department of Mathematics (Applied Mathematics Seminar), William & Mary, USA.
- July 24, 2019 F.S. Kuh<sup>#</sup> [presenter], G.S. Chiu, and **A.H. Westveld**. Modelling national latent socio-economic health with causal inference. Department of Statistics, University of Auckland, NZ.

#### Recent Invited and Contributed Student Poster Presentations

- Dec 2023 Santiago Marin<sup>#</sup>, B. Loong, and **A.H. Westveld**. BOB: Bayesian Optimized Bootstrap with invited Applications to Gaussian Mixture Models. Bayesian Nonparametrics Networking Workshop.
- Dec 2023 Santiago Marin<sup>#</sup>, B. Loong, and **A.H. Westveld**. BOB: Bayesian Optimized Bootstrap invited with Applications to Gaussian Mixture Models. Australian Statistical Conference.
- Dec 2023 F.S. Kuh<sup>#</sup>, G.S. Chiu, and **A.H. Westveld**. Joint modelling of multiple treatment variables invited for a single outcome: A Bayesian approach. Bayesian Nonparametrics Networking Workshop.
- Dec 2023 F.S. Kuh<sup>#</sup>, G.S. Chiu, and A.H. Westveld. LACSH index: Modelling National Latent invited Socioeconomic Health and Examination of Policy Effects. Australian Statistical Conference.
- Jul 2021 C.H. Chien#, A.H. Welsh, and **A.H. Westveld**. Australian Business Networks. ANZSC invited 2020.
- Aug 2018 J.J.R. Lee<sup>#</sup>, **A.H. Westveld**. A Variational Bayes Approach to Clustered Latent Preference Contibuted Models for Directed Network Data. Joint Statistical Meeting 2018.
- Aug 2018 J.J.R. Lee<sup>#</sup>, **A.H. Westveld**. A Variational Bayes Approach to Clustered Latent Preference Contibuted Models for Directed Network Data. Joint Statistical Meeting 2018.
- July 2018 M.W. Dawkins<sup>#</sup>, G.S. Chiu, **A.H. Westveld**. Melded Bayesian Inference for Stochastic Contibuted Theoretical Models with Applications in Agent Based Modeling. Joint Statistical Meeting 2018.
  - Sep 2017 F.S. Kuh<sup>#</sup>, G.S. Chiu, **A.H. Westveld**. Latent Socio-Economic Health and Causal Modelling. Invited Bayes on the Beach 2017.
  - Sep 2016 F.S. Kuh#, **A.H. Westveld**, G.S. Chiu. Social Network Analysis on Food Web and Dispute Invited Data. University of Auckland Postgraduate Poster Competition 2015.