

# Ivan Jacob Agaloos Pesigan

June 27, 2024

## References

- Aalen, O. O., Røysland, K., Gran, J. M., Kouyos, R., & Lange, T. (2016). Can we believe the DAGs? A comment on the relationship between causal DAGs and mechanisms. *Statistical Methods in Medical Research*, 25(5), 2294–2314. <https://doi.org/10.1177/0962280213520436>
- Aalen, O. O., Røysland, K., Gran, J. M., & Ledergerber, B. (2012). Causality, mediation and time: A dynamic viewpoint. *Journal of the Royal Statistical Society. Series A (Statistics in Society)*, 175(4), 831–861. <https://doi.org/10.1111/j.1467-985X.2011.01030.x>
- Asparouhov, T., Hamaker, E. L., & Muthén, B. (2017). Dynamic structural equation models. *Structural Equation Modeling: A Multidisciplinary Journal*, 25(3), 359–388. <https://doi.org/10.1080/10705511.2017.1406803>
- Biesanz, J. C., Falk, C. F., & Savalei, V. (2010). Assessing mediational models: Testing and interval estimation for indirect effects. *Multivariate Behavioral Research*, 45(4), 661–701. <https://doi.org/10.1080/00273171.2010.498292>
- Blanca, M. J., Arnau, J., Lopez-Montiel, D., Bono, R., & Bendayan, R. (2013). Skewness and kurtosis in real data samples. *Methodology*, 9(2), 78–84. <https://doi.org/10.1027/1614-2241/a000057>
- Boettiger, C., & Eddelbuettel, D. (2017). An introduction to Rocker: Docker containers for R. *The R Journal*, 9(2), 527. <https://doi.org/10.32614/rj-2017-065>
- Chen, G., Glen, D. R., Saad, Z. S., Hamilton, J. P., Thomason, M. E., Gotlib, I. H., & Cox, R. W. (2011). Vector autoregression, structural equation modeling, and their synthesis in neuroimaging data analysis. *Computers in Biology and Medicine*, 41(12), 1142–1155. <https://doi.org/10.1016/j.compbiomed.2011.09.004>
- Chow, S.-M., Ho, M.-h. R., Hamaker, E. L., & Dolan, C. V. (2010). Equivalence and differences between structural equation modeling and state-space modeling techniques. *Structural Equa-*

- tion Modeling: A Multidisciplinary Journal*, 17(2), 303–332. <https://doi.org/10.1080/10705511003661553>
- Curran, P. J., & Bauer, D. J. (2011). The disaggregation of within-person and between-person effects in longitudinal models of change. *Annual Review of Psychology*, 62(1), 583–619. <https://doi.org/10.1146/annurev.psych.093008.100356>
- de Haan-Rietdijk, S., Voelkle, M. C., Keijsers, L., & Hamaker, E. L. (2017). Discrete- vs. continuous-time modeling of unequally spaced experience sampling method data. *Frontiers in Psychology*, 8. <https://doi.org/10.3389/fpsyg.2017.01849>
- Deboeck, P. R., & Boulton, A. J. (2016). Integration of stochastic differential equations using structural equation modeling: A method to facilitate model fitting and pedagogy. *Structural Equation Modeling: A Multidisciplinary Journal*, 23(6), 888–903. <https://doi.org/10.1080/10705511.2016.1218763>
- Deboeck, P. R., & Preacher, K. J. (2015). No need to be discrete: A method for continuous time mediation analysis. *Structural Equation Modeling: A Multidisciplinary Journal*, 23(1), 61–75. <https://doi.org/10.1080/10705511.2014.973960>
- Demeshko, M., Washio, T., Kawahara, Y., & Petyolyshev, Y. (2015). A novel continuous and structural VAR modeling approach and its application to reactor noise analysis. *ACM Transactions on Intelligent Systems and Technology*, 7(2), 1–22. <https://doi.org/10.1145/2710025>
- Driver, C. C., Oud, J. H. L., & Voelkle, M. C. (2017). Continuous time structural equation modeling with R package ctsem. *Journal of Statistical Software*, 77(5). <https://doi.org/10.18637/jss.v077.i05>
- Driver, C. C., & Voelkle, M. C. (2018). Hierarchical Bayesian continuous time dynamic modeling. *Psychological Methods*, 23(4), 774–799. <https://doi.org/10.1037/met0000168>
- Dudgeon, P. (2017). Some improvements in confidence intervals for standardized regression coefficients. *Psychometrika*, 82(4), 928–951. <https://doi.org/10.1007/s11336-017-9563-z>
- Eddelbuettel, D., & Balamuta, J. J. (2017). Extending R with C++: A brief introduction to Rcpp. *PeerJ Preprints*, 3188v1(3). <https://doi.org/10.7287/peerj.preprints.3188v1>

- Eddelbuettel, D., & François, R. (2011). Rcpp: Seamless R and C++ integration. *Journal of Statistical Software*, 40(8). <https://doi.org/10.18637/jss.v040.i08>
- Eddelbuettel, D., & Sanderson, C. (2014). RcppArmadillo: Accelerating R with high-performance C++ linear algebra. *Computational Statistics & Data Analysis*, 71, 1054–1063. <https://doi.org/10.1016/j.csda.2013.02.005>
- Efron, B. (2012). Bayesian inference and the parametric bootstrap. *The Annals of Applied Statistics*, 6(4). <https://doi.org/10.1214/12-aos571>
- Enders, C. K., Fairchild, A. J., & MacKinnon, D. P. (2013). A Bayesian approach for estimating mediation effects with missing data. *Multivariate Behavioral Research*, 48(3), 340–369. <https://doi.org/10.1080/00273171.2013.784862>
- Epskamp, S., Borsboom, D., & Fried, E. I. (2017). Estimating psychological networks and their accuracy: A tutorial paper. *Behavior Research Methods*, 50(1), 195–212. <https://doi.org/10.3758/s13428-017-0862-1>
- Epskamp, S., Waldorp, L. J., Mottus, R., & Borsboom, D. (2018). The Gaussian graphical model in cross-sectional and time-series data. *Multivariate Behavioral Research*, 53(4), 453–480. <https://doi.org/10.1080/00273171.2018.1454823>
- Fairchild, A. J., & MacKinnon, D. P. (2014). Using mediation and moderation analyses to enhance prevention research. In *Defining prevention science* (pp. 537–555). Springer US. [https://doi.org/10.1007/978-1-4899-7424-2\\_23](https://doi.org/10.1007/978-1-4899-7424-2_23)
- Fritz, M. S., Taylor, A. B., & MacKinnon, D. P. (2012). Explanation of two anomalous results in statistical mediation analysis. *Multivariate Behavioral Research*, 47(1), 61–87. <https://doi.org/10.1080/00273171.2012.640596>
- Gates, K. M., Molenaar, P. C., Hillary, F. G., Ram, N., & Rovine, M. J. (2010). Automatic search for fMRI connectivity mapping: An alternative to Granger causality testing using formal equivalences among SEM path modeling, VAR, and unified SEM. *NeuroImage*, 50(3), 1118–1125. <https://doi.org/10.1016/j.neuroimage.2009.12.117>

- Gu, F., Preacher, K. J., & Ferrer, E. (2014). A state space modeling approach to mediation analysis. *Journal of Educational and Behavioral Statistics*, 39(2), 117–143. <https://doi.org/10.3102/1076998614524823>
- Hamaker, E. L., Ceulemans, E., Grasman, R. P. P. P., & Tuerlinckx, F. (2015). Modeling affect dynamics: State of the art and future challenges. *Emotion Review*, 7(4), 316–322. <https://doi.org/10.1177/1754073915590619>
- Hamaker, E. L., Kuiper, R. M., & Grasman, R. P. P. P. (2015). A critique of the cross-lagged panel model. *Psychological Methods*, 20(1), 102–116. <https://doi.org/10.1037/a0038889>
- Hayes, A. F., & Scharkow, M. (2013). The relative trustworthiness of inferential tests of the indirect effect in statistical mediation analysis. *Psychological Science*, 24(10), 1918–1927. <https://doi.org/10.1177/0956797613480187>
- Hecht, M., & Voelkle, M. C. (2019). Continuous-time modeling in prevention research: An illustration. *International Journal of Behavioral Development*, 45(1), 19–27. <https://doi.org/10.1177/0165025419885026>
- Hesterberg, T. C. (2015). What teachers should know about the bootstrap: Resampling in the undergraduate statistics curriculum. *The American Statistician*, 69(4), 371–386. <https://doi.org/10.1080/00031305.2015.1089789>
- Hingson, R., Zha, W., & Smyth, D. (2017). Magnitude and trends in heavy episodic drinking, alcohol-impaired driving, and alcohol-related mortality and overdose hospitalizations among emerging adults of college ages 18–24 in the United States, 1998–2014. *Journal of Studies on Alcohol and Drugs*, 78(4), 540–548. <https://doi.org/10.15288/jsad.2017.78.540>
- Hunter, M. D. (2017). State space modeling in an open source, modular, structural equation modeling environment. *Structural Equation Modeling: A Multidisciplinary Journal*, 25(2), 307–324. <https://doi.org/10.1080/10705511.2017.1369354>
- Jensen, M. P., & Turk, D. C. (2014). Contributions of psychology to the understanding and treatment of people with chronic pain: Why it matters to ALL psychologists. *American Psychologist*, 69(2), 105–118. <https://doi.org/10.1037/a0035641>

- Jones, J. A., & Waller, N. G. (2013). Computing confidence intervals for standardized regression coefficients. *Psychological Methods*, 18(4), 435–453. <https://doi.org/10.1037/a0033269>
- Jones, J. A., & Waller, N. G. (2015). The normal-theory and asymptotic distribution-free (ADF) covariance matrix of standardized regression coefficients: Theoretical extensions and finite sample behavior. *Psychometrika*, 80(2), 365–378. <https://doi.org/10.1007/s11336-013-9380-y>
- Kisbu-Sakarya, Y., MacKinnon, D. P., & Miočević, M. (2014). The distribution of the product explains normal theory mediation confidence interval estimation. *Multivariate Behavioral Research*, 49(3), 261–268. <https://doi.org/10.1080/00273171.2014.903162>
- Koopman, J., Howe, M., Hollenbeck, J. R., & Sin, H.-P. (2015). Small sample mediation testing: Misplaced confidence in bootstrapped confidence intervals. *Journal of Applied Psychology*, 100(1), 194–202. <https://doi.org/10.1037/a0036635>
- Kossakowski, J. J., Groot, P. C., Haslbeck, J. M. B., Borsboom, D., & Wichers, M. (2017). Data from 'Critical slowing down as a personalized early warning signal for depression'. *Journal of Open Psychology Data*, 5. <https://doi.org/10.5334/jopd.29>
- Kuiper, R. M., & Ryan, O. (2018). Drawing conclusions from cross-lagged relationships: Re-considering the role of the time-interval. *Structural Equation Modeling: A Multidisciplinary Journal*, 25(5), 809–823. <https://doi.org/10.1080/10705511.2018.1431046>
- Kuppens, P. (2015). It's about time: A special section on affect dynamics. *Emotion Review*, 7(4), 297–300. <https://doi.org/10.1177/1754073915590947>
- Kurtzer, G. M., Sochat, V., & Bauer, M. W. (2017). Singularity: Scientific containers for mobility of compute (A. Gursoy, Ed.). *PLOS ONE*, 12(5), e0177459. <https://doi.org/10.1371/journal.pone.0177459>
- Kwan, J. L. Y., & Chan, W. (2011). Comparing standardized coefficients in structural equation modeling: A model reparameterization approach. *Behavior Research Methods*, 43(3), 730–745. <https://doi.org/10.3758/s13428-011-0088-6>

- Kwan, J. L. Y., & Chan, W. (2014). Comparing squared multiple correlation coefficients using structural equation modeling. *Structural Equation Modeling: A Multidisciplinary Journal*, 21(2), 225–238. <https://doi.org/10.1080/10705511.2014.882673>
- Leffingwell, T. R., Cooney, N. J., Murphy, J. G., Luczak, S., Rosen, G., Dougherty, D. M., & Barnett, N. P. (2012). Continuous objective monitoring of alcohol use: Twenty-first century measurement using transdermal sensors. *Alcoholism: Clinical and Experimental Research*, 37(1), 16–22. <https://doi.org/10.1111/j.1530-0277.2012.01869.x>
- Maxwell, S. E., Cole, D. A., & Mitchell, M. A. (2011). Bias in cross-sectional analyses of longitudinal mediation: Partial and complete mediation under an autoregressive model. *Multivariate Behavioral Research*, 46(5), 816–841. <https://doi.org/10.1080/00273171.2011.606716>
- Merkel, D. (2014). Docker: Lightweight Linux containers for consistent development and deployment. *Linux Journal*, 2014(239), 2. <https://www.linuxjournal.com/content/docker-lightweight-linux-containers-consistent-development-and-deployment>
- Miocevic, M., Gonzalez, O., Valente, M. J., & MacKinnon, D. P. (2017). A tutorial in Bayesian potential outcomes mediation analysis. *Structural Equation Modeling: A Multidisciplinary Journal*, 25(1), 121–136. <https://doi.org/10.1080/10705511.2017.1342541>
- Molenaar, P. C. M. (2017). Equivalent dynamic models. *Multivariate Behavioral Research*, 52(2), 242–258. <https://doi.org/10.1080/00273171.2016.1277681>
- Moneta, A., Chlaß, N., Entner, D., & Hoyer, P. (2011). Causal search in structural vector autoregressive models. *Journal of Machine Learning Research - Proceedings Track*, 12, 95–114.
- Neale, M. C., Hunter, M. D., Pritikin, J. N., Zahery, M., Brick, T. R., Kirkpatrick, R. M., Estabrook, R., Bates, T. C., Maes, H. H., & Boker, S. M. (2015). OpenMx 2.0: Extended structural equation and statistical modeling. *Psychometrika*, 81(2), 535–549. <https://doi.org/10.1007/s11336-014-9435-8>
- O’Laughlin, K. D., Martin, M. J., & Ferrer, E. (2018). Cross-sectional analysis of longitudinal mediation processes. *Multivariate Behavioral Research*, 53(3), 375–402. <https://doi.org/10.1080/00273171.2018.1454822>

- Oravecz, Z., Tuerlinckx, F., & Vandekerckhove, J. (2011). A hierarchical latent stochastic differential equation model for affective dynamics. *Psychological Methods*, 16(4), 468–490. <https://doi.org/10.1037/a0024375>
- O’Rourke, H. P., & MacKinnon, D. P. (2018). Reasons for testing mediation in the absence of an intervention effect: A research imperative in prevention and intervention research. *Journal of Studies on Alcohol and Drugs*, 79(2), 171–181. <https://doi.org/10.15288/jsad.2018.79.171>
- O’Rourke, H. P., & MacKinnon, D. P. (2019). The importance of mediation analysis in substance-use prevention. In *Advances in prevention science* (pp. 233–246). Springer International Publishing. [https://doi.org/10.1007/978-3-030-00627-3\\_15](https://doi.org/10.1007/978-3-030-00627-3_15)
- Ou, L., Hunter, M. D., & Chow, S.-M. (2019). What’s for dynr: A package for linear and nonlinear dynamic modeling in R. *The R Journal*, 11(1), 91. <https://doi.org/10.32614/rj-2019-012>
- Piasecki, T. M. (2019). Assessment of alcohol use in the natural environment. *Alcoholism: Clinical and Experimental Research*, 43(4), 564–577. <https://doi.org/10.1111/acer.13975>
- Preacher, K. J., & Kelley, K. (2011). Effect size measures for mediation models: Quantitative strategies for communicating indirect effects. *Psychological Methods*, 16(2), 93–115. <https://doi.org/10.1037/a0022658>
- Preacher, K. J., & Selig, J. P. (2012). Advantages of Monte Carlo confidence intervals for indirect effects. *Communication Methods and Measures*, 6(2), 77–98. <https://doi.org/10.1080/19312458.2012.679848>
- Reichardt, C. S. (2011). Commentary: Are three waves of data sufficient for assessing mediation? *Multivariate Behavioral Research*, 46(5), 842–851. <https://doi.org/10.1080/00273171.2011.606740>
- Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48(2). <https://doi.org/10.18637/jss.v048.i02>
- Sacks, J. J., Gonzales, K. R., Bouchery, E. E., Tomedi, L. E., & Brewer, R. D. (2015). 2010 national and state costs of excessive alcohol consumption. *American Journal of Preventive Medicine*, 49(5), e73–e79. <https://doi.org/10.1016/j.amepre.2015.05.031>

- Schermerhorn, A. C., Chow, S.-M., & Cummings, E. M. (2010). Developmental family processes and interparental conflict: Patterns of microlevel influences. *Developmental Psychology*, 46(4), 869–885. <https://doi.org/10.1037/a0019662>
- Schouten, R. M., Lugtig, P., & Vink, G. (2018). Generating missing values for simulation purposes: A multivariate amputation procedure. *Journal of Statistical Computation and Simulation*, 88(15), 2909–2930. <https://doi.org/10.1080/00949655.2018.1491577>
- Schultzberg, M., & Muthén, B. (2017). Number of subjects and time points needed for multilevel time-series analysis: A simulation study of dynamic structural equation modeling. *Structural Equation Modeling: A Multidisciplinary Journal*, 25(4), 495–515. <https://doi.org/10.1080/10705511.2017.1392862>
- Schuurman, N. K., & Hamaker, E. L. (2019). Measurement error and person-specific reliability in multilevel autoregressive modeling. *Psychological Methods*, 24(1), 70–91. <https://doi.org/10.1037/met0000188>
- Schuurman, N. K., Houtveen, J. H., & Hamaker, E. L. (2015). Incorporating measurement error in  $n = 1$  psychological autoregressive modeling. *Frontiers in Psychology*, 6. <https://doi.org/10.3389/fpsyg.2015.01038>
- Shrout, P. E. (2011). Commentary: Mediation analysis, causal process, and cross-sectional data. *Multivariate Behavioral Research*, 46(5), 852–860. <https://doi.org/10.1080/00273171.2011.606718>
- Singer, H. (2012). SEM modeling with singular moment matrices part II: ML-estimation of sampled stochastic differential equations. *The Journal of Mathematical Sociology*, 36(1), 22–43. <https://doi.org/10.1080/0022250x.2010.532259>
- Smith, K. E., & Juarascio, A. (2019). From ecological momentary assessment (EMA) to ecological momentary intervention (EMI): Past and future directions for ambulatory assessment and interventions in eating disorders. *Current Psychiatry Reports*, 21(7). <https://doi.org/10.1007/s11920-019-1046-8>



- Taylor, A. B., & MacKinnon, D. P. (2012). Four applications of permutation methods to testing a single-mediator model. *Behavior Research Methods*, 44(3), 806–844. <https://doi.org/10.3758/s13428-011-0181-x>
- Tibshirani, R. (2011). Regression shrinkage and selection via the lasso: A retrospective. *Journal of the Royal Statistical Society Series B: Statistical Methodology*, 73(3), 273–282. <https://doi.org/10.1111/j.1467-9868.2011.00771.x>
- Tofighi, D., & Kelley, K. (2019). Indirect effects in sequential mediation models: Evaluating methods for hypothesis testing and confidence interval formation. *Multivariate Behavioral Research*, 55(2), 188–210. <https://doi.org/10.1080/00273171.2019.1618545>
- Tofighi, D., & MacKinnon, D. P. (2015). Monte Carlo confidence intervals for complex functions of indirect effects. *Structural Equation Modeling: A Multidisciplinary Journal*, 23(2), 194–205. <https://doi.org/10.1080/10705511.2015.1057284>
- Usami, S., Murayama, K., & Hamaker, E. L. (2019). A unified framework of longitudinal models to examine reciprocal relations. *Psychological Methods*, 24(5), 637–657. <https://doi.org/10.1037/met0000210>
- van Buuren, S., & Groothuis-Oudshoorn, K. (2011). mice: Multivariate imputation by chained equations in R. *Journal of Statistical Software*, 45(3). <https://doi.org/10.18637/jss.v045.i03>
- Ver Hoef, J. M. (2012). Who invented the delta method? *The American Statistician*, 66(2), 124–127. <https://doi.org/10.1080/00031305.2012.687494>
- Voelkle, M. C., & Oud, J. H. L. (2012). Continuous time modelling with individually varying time intervals for oscillating and non-oscillating processes. *British Journal of Mathematical and Statistical Psychology*, 66(1), 103–126. <https://doi.org/10.1111/j.2044-8317.2012.02043.x>
- Voelkle, M. C., Oud, J. H. L., Davidov, E., & Schmidt, P. (2012). An SEM approach to continuous time modeling of panel data: Relating authoritarianism and anomia. *Psychological Methods*, 17(2), 176–192. <https://doi.org/10.1037/a0027543>
- Vuorre, M., & Bolger, N. (2017). Within-subject mediation analysis for experimental data in cognitive psychology and neuroscience. *Behavior Research Methods*, 50(5), 2125–2143. <https://doi.org/10.3758/s13428-017-0980-9>

- Wichers, M., Groot, P. C., Psychosystems, ESM Group, & EWS Group. (2016). Critical slowing down as a personalized early warning signal for depression. *Psychotherapy and Psychosomatics*, 85(2), 114–116. <https://doi.org/10.1159/000441458>
- Wu, W., & Jia, F. (2013). A new procedure to test mediation with missing data through nonparametric bootstrapping and multiple imputation. *Multivariate Behavioral Research*, 48(5), 663–691. <https://doi.org/10.1080/00273171.2013.816235>
- Yuan, K.-H., & Chan, W. (2011). Biases and standard errors of standardized regression coefficients. *Psychometrika*, 76(4), 670–690. <https://doi.org/10.1007/s11336-011-9224-6>
- Yzerbyt, V., Muller, D., Batailler, C., & Judd, C. M. (2018). New recommendations for testing indirect effects in mediational models: The need to report and test component paths. *Journal of Personality and Social Psychology*, 115(6), 929–943. <https://doi.org/10.1037/pspa0000132>
- Zhang, Z., & Wang, L. (2012). Methods for mediation analysis with missing data. *Psychometrika*, 78(1), 154–184. <https://doi.org/10.1007/s11336-012-9301-5>
- Zyphur, M. J., Allison, P. D., Tay, L., Voelkle, M. C., Preacher, K. J., Zhang, Z., Hamaker, E. L., Shamsollahi, A., Pierides, D. C., Koval, P., & Diener, E. (2019). From data to causes I: Building a general cross-lagged panel model (GCLM). *Organizational Research Methods*, 23(4), 651–687. <https://doi.org/10.1177/1094428119847278>
- Zyphur, M. J., Voelkle, M. C., Tay, L., Allison, P. D., Preacher, K. J., Zhang, Z., Hamaker, E. L., Shamsollahi, A., Pierides, D. C., Koval, P., & Diener, E. (2019). From data to causes II: Comparing approaches to panel data analysis. *Organizational Research Methods*, 23(4), 688–716. <https://doi.org/10.1177/1094428119847280>