

MAJ Daniel Baller

Assistant Professor, United States Military Academy
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Updated: 15 February 2022

Education

M.S., Operations Research, *Georgia Institute of Technology* 2018
B.S., Operations Research with Honors, *The United States Military Academy* 2008

Academic Experience

Director, Center for Data Analysis and Statistics (CDAS)
United States Military Academy 2021-Present
Assistant Professor, Department of Mathematical Sciences
United States Military Academy 2020-Present
Instructor, Department of Mathematical Sciences
United States Military Academy 2018-2020

Courses Directed

United States Military Academy
MA388 - Sabermetrics 2022
MA376 - (Assistant) Applied Statistics 2021
MA206 - Introduction to Probability and Statistics 2020-2021
MA206 - (Assistant) Introduction to Probability and Statistics 2020
MA206 - Introduction to Probability and Statistics 2019

Courses Taught

United States Military Academy
MA388 - Sabermetrics 2022
MA376 - Applied Statistics 2021
MA206 - Introduction to Probability and Statistics 2019 - 2021
MA103 - Mathematical Modeling and Introduction to Calculus 2018

Short Courses

OS305 - Introduction to Advanced Data Analysis (2 Iterations) 2020-2021
Data Science for Leaders, XVIII Airborne Corps 2021

Refereed Publications

Campa, F., Thomas, D.M., Watts, K., Clark, N., **Baller, D.**, Morin, T., Toselli, S., Koury, J.C., Melchiorri, G., Andreoli, A., Mascherini, G., Petri, C., Sardinha, L.B., Silva, A.M. (2022) Reference Percentiles for Bioelectrical Phase Angle in Athletes. *Biology* 2022, 11, 264. Impact Factor: 5.079. <https://doi.org/10.3390/biology11020264>

Thomas, D.M., Siegel, B., **Baller, D.**, Lindquist, J., Cready, G., Zervios, J.T., Nadglowski, J.F., Jr. and Kyle, T.K. (2020), Can the Participant Speak Beyond Likert? Free-Text Responses in COVID-19 Obesity Surveys. *Obesity*, 28: 2268-2271. <https://doi.org/10.1002/oby.23037>

Baller, D., Thomas, D., Cummiskey, K., Bredlau, K., Schwartz, N., Orzechowski, K., Miller, R., Odibo, A., Shah, R., Salafia, C. (2019) Gestational growth trajectories derived from a dynamic fetal-placental scaling law, *Journal of the Royal Society Interface*, Impact factor: 3.224. <https://royalsocietypublishing.org/doi/10.1098/rsif.2019.0417>

Adams, B., **Baller, D.**, Jonas, B., Joseph, A., Cummiskey, K., Computational Skills for Multivariable Thinking in Introductory Statistics. *Journal of Statistics Education*. <https://doi.org/10.1080/10691898.2020.1852139>

Presentations

Baller, D., Thomas, D., Cummiskey, K., Bredlau, K., Schwartz, N., Orzechowski, K., Miller, R., Odibo, A., Shah, R., Salafia, C. (2019) Gestational growth trajectories derived from a dynamic fetal-placental scaling law, *MAA MathFest*.

Conference Proceedings

Morin, T., Clark, N., **Baller, D.**, Watts, K. (2018) Estimating Phase Angle Percentiles in Elite Athletes, *Experimental Biology*. Abstract Published in *The FASEB Journal*, April, 2020, Impact factor: 5.391, presentation canceled due to COVID-19.

Aloma, Z., Hughes, D., **Baller, D.**, Thomas, D. (2018) The Pitching Problem: Proxy Measures for the Identification of Pitcher Fatigue, *Experimental Biology*. Abstract Published in *The FASEB Journal*, April, 2020, Impact factor: 5.391, presentation canceled due to COVID-19.

Baller, D., Johnson, A., McCulloh, I., Schrieber, C., Carley, K. (2008) Specific Communication Network Measure Distribution Estimation I, *Sunbelt XXVIII, International Sunbelt Social Network Conference*. https://assets.noviams.com/novi-file-uploads/insna/PDFs/Sunbelt_2008.pdf

Baller, D., Lospinoso, J. (2008) Specific Communication Network Measure Distribution Estimation II, *13th ICCRTS*. http://www.dodccrp.org/events/13th_iccrts_2008/CD/html/papers/251.pdf

Baller, D., Lospinoso, J., Johnson, A. (2008) An Empirical Method for the Evaluation of Dynamic Network Simulation Methods, *2008 International Conference on Information & Knowledge Engineering, IKE 2008*.

Funding Awarded

Grant, Faculty Development Research Fund (FRF)	2019
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Professional Memberships

Mathematical Association of America	2019
Alpha Pi Mu - Industrial Engineering Honor Society	2018
Institute of Industrial and Systems Engineers (IISE)	2016-2018
Pi Mu Epsilon - Mathematics Honors Society	2007

Faculty Development

Presenter Intro to GitHub and R Markdown, Center For Faculty Development	2021
Presenter Intro to Dashboarding in R, MA206	2021
Panelist Technology in the Classroom, MA206	2021
Presenter Department Bayesian Statistics Study Group	2019

Student Research

Co-Adviser, Independent Study, Naomi Edegbe, Naomi, “Predictive Modeling for Success in the Special Forces Training Pipeline.”

Co-Adviser, Honors Thesis. Previte, Peter, “The Anti-Cycle in Baseball.”

Co-Adviser, Honors Thesis. Morin, Thomas, “Estimating Phase Angle Percentiles in Elite Athletes.”

Co-Adviser, Honors Thesis. Hurtubise, Jacob, “Analysis of Base Stealing – the fastest 3.3 seconds in sports.”

Co-Adviser, Honors Thesis. Aloma, Zachary, “The Pitching Problem: Proxy Measures for the Identification of Pitcher Fatigue.”

Co-Adviser, Honors Thesis. Seigel, Benjamin, “The hidden message in letters of recommendation: A natural language processing analysis of letters of recommendation at the United States Military Academy”

Co-Adviser, Honors Thesis. Rose, Frank, “Two-Stage Stochastic Optimization for C-UAS Acquisition”

Second Reader, Nicosia, Gino, “Modeling Madness.”

Second Reader, Wilby, Bridget, “Forecasting Medical Screening Demand: Analysis of the Cadet Foreign Travel Medical Screening Process.” Hollis Award Winner 2019.

Second Reader, Cunningham, Nicholas, “Measuring the Effect of Writing Centers Using Statistical Methods”

Institutional and Student Developmental Service

Reviewer for the American Journal of Clinical Nutrition (the top ranked journal for original research publications in nutrition) Impact Factor 6.77 2020-Present

Member, Dean’s Remote Teaching Distance Education Working Group (RTDEWG) 2020

Triage Judge, Interdisciplinary Contest in Modeling by COMAP 2020

Reviewer for PLOS ONE, Impact Factor 2.74 2019-Present

Military Intelligence Branch Mentor 2018-Present

IISE Graduate Chapter President, Georgia Institute of Technology 2017

Department Photographer 2018-Present

Selected Military Service

Yongsan Garrison, KOR 2015-2016

Assistant Operations Officer, 501st MI BDE

Camp Humphreys, KOR 2014-2015

Company Commander, A CO, 719th MI BN, 501st MI BDE

Camp Casey, KOR 2013-2014

Battalion Intelligence Officer, 2-9 Infantry Battalion, 1 ABCT

Deployments

Operation Iraqi Freedom/Operation New Dawn, Iraq 2010

Selected Awards

IISE Innovative Design Competition, 2nd Place 2017

Meritorious Service Medal (1)

Army Commendation Medal (3)

Army Achievement Medal (1)

Air Assault Badge

Overseas Service Ribbon (3)

Office of the Secretary of Defense Network Science Excellence Award – Best Student Project

Network Science – United States Military Academy, West Point, New York, 2008