Nicholas Aaron Syring

Contact Information

Email: nsyring@iastate.edu
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Professional Experience

Iowa State University, Department of Statistics, *Assistant Professor*, 2020 – **Current Position**

Allstate Insurance, *Data Scientist*, 12/2017 – 08/2018

Allstate Insurance, *Data Scientist Intern*, Summer 2017

Google Summer of Code, Summer 2016

NASA Langley Area Research Center, *Visiting Research Scientist*, Summer 2014

Capital One, *Statistician Intern*, Summer 2013

State Farm Life Insurance Company, *Actuarial Analyst*, 2009–2011

Education

Ph.D. Mathematics, University of Illinois at Chicago, Advisor: Dr. Ryan Martin, 12/2017

M.S. Statistics, Northern Illinois University, 2013

B.S. Actuarial Science, Illinois State University, 2009

Journal Articles

Published or Accepted

N. Syring and R. Martin. Robust and Rate-Optimal Gibbs Posterior Inference on the Boundary of a Noisy Image. **Annals of Statistics.** Volume 48, Number 3 (2020), 1498-1513. https://doi.org/10.1214/19-AOS1856

R. Martin and N. Syring. Validity-preservation properties of rules for combining inferential models. Proceedings of the Eleventh International Symposium on Imprecise Probabilities: Theories and Applications, in **Proceedings of Machine Learning Research**. (2019), 103:286-294. http://proceedings.mlr.press/v103/martin19a/martin19a.pdf.

N. Syring L. Hong, and R. Martin. Gibbs Posterior Inference on Value-at-Risk. **Scandinavian Actuarial Journal.** (2019). https://doi.org/10.1080/03461238.2019.1573754.

N. Syring and R. Martin. Calibrating General Posterior Credible Regions. **Biometrika.** (2018). https://doi.org/10.1093/biomet/asy054.

N. Syring and R. Martin. Gibbs Posterior Inference on the Minimum Clinically Important Difference. **Journal of Statistical Planning and Inference.** 187 (2017): 67-77. http://dx.doi.org/10.1016/j.jspi.2017.03.001.

C. Liu, R. Martin, and N. Syring. Efficient Simulation from a Gamma Distribution with Small Shape Parameter. **Computational Statistics** 32, 4 (2017): 1767-1775. https://doi.org/10.1007/s00180-016-0692-0.

N. Syring and M. Li. BayesBD: An R Package for Bayesian Inference on Image Boundaries. **R Journal.** 9, 2 (2017): 149-162. https://journal.r-project.org/archive/2017/RJ-2017-052/index.html.

In Preparation or Submitted

N. Syring and R. Martin. Gibbs posterior concentration rates under sub-exponential type losses. (2020) Submitted. https://arxiv.org/pdf/2012.04505.pdf

N. Syring and R. Martin. Stochastic optimization for numerical evaluation of imprecise probabilities. (2021) Submitted. https://arxiv.org/abs/2103.02659.pdf

N. Syring. Robust posterior inference on Youden's index cutoff. In preparation.

N Syring. Adaptive concentration of Gibbs posterior distributions. In preparation.

Teaching

@ Iowa State University

STAT 342: Introduction to the theory of probability and statistics II

STAT 588: Statistical Theory for Research Workers, Instructor

@ Washington University St. Louis

MATH3200: Elementary to Intermediate Statistics, Instructor (5 sections)

MATH475: Statistical Computation, Instructor

@ North Carolina State University

ST311: Introduction to Statistics, Instructor

@ University of Illinois at Chicago

STAT381: Applied Statistical Methods I, Instructor

Advising

@ Washington University St. Louis

MATH500: Independent Work, Summer 2019

Conferences and Seminar Talks

SIAM CSE21 Invited Talk
Frequentist calibration of posterior distributions
March 2021

Bayesian, Fiducial, Frequentist Workshops, Invited Talk
Advances by Next-Generation BFFs: Gibbs Posterior Distributions
February 2021

WHOA-PSI 4 Poster Presentation
Treatment Selection Problems
WUSTL–08/2019

ISIPTA 2019 Contributed Talk
Validity-preservation properties of rules for combining inferential models
Uni Ghent–07/2019

Bayesian, Fiducial, and Frequentists (BFF 6) Poster Presentation
Gibbs Posterior Inference on Youden's Index cutoff
Duke–05/2019

Statistics Seminar
Inferential models in errors-in-variables models
WUSTL–11/2018

Joint Statistical Meetings Invited Poster Presentation
Inferential Models for Instrumental Variables
Baltimore–07/2017

Summer Research Conference
Image Boundary Detection via a Gibbs Model
IIT–05/2016

Undergraduate Mathematics Seminar
Misspecified Statistical Models: What happens when the model is wrong?
Wheaton College–11/2015

Statistics Seminar
Scaling the Gibbs posterior
University of Illinois at Chicago–09/2015

Statistics Seminar
On Bayesian inference without a model
University of Illinois at Chicago–11/2014

Professional Service

Reviewer for: *Journal of the Royal Statistical Society*, *Statistica Sinica*, *Journal of the American Statistical Association*, *Sankhya*, *Bayesian Analysis*, *Journal of Statistical PLanning and Inference*, *SIAM Journal of Uncertainty Quantification*, *Technometrics*.

Volunteer at Science Bound encouraging young Iowans to study science and mathematics