

# Curriculum Vitæ

G. Jay Kerns

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## Contact Information

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## Academic Degrees

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<b>2004</b>	Ph.D.	Mathematics, Statistics Specialization	Bowling Green State University
<b>2000</b>	M.A.	Mathematics	Bowling Green State University
<b>1999</b>	B.A.Ed.	Music (K-12), Mathematics (5-12), Science (5-8)	Glenville State College

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**Dissertation:** *Signed Measures in Exchangeability and Infinite Divisibility*, advised by Dr. Gábor J. Székely

## Professional Appointments

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<b>2016–</b>	Professor	Youngstown State University
<b>2008–2016</b>	Associate Professor	Youngstown State University
<b>2004–2008</b>	Assistant Professor	Youngstown State University
<b>1999–2004</b>	Graduate Assistant	Bowling Green State University

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## Honors and Awards

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<b>2013</b>	<b>Distinguished Professor Award</b> for <i>Excellence in University Service</i>
<b>2011</b>	<b>Outstanding Young Alumnus Award</b> honored by Glenville State College
<b>2010</b>	<b>YSU Sabbatical</b> entitled <i>Statistical Generation of Assessment Devices in the GNU-FDL Context</i>

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## Recent Publications

### Refereed Journal Articles

- 2015** Lauren A. Schroeder, Scott C. Martin, **G. Jay Kerns** and Colleen E. McLean. *Diatom assemblages in a reservoir sediment core track land-use changes and other activities on the watershed*. **Journal of Paleolimnology**, in press <http://dx.doi.org/10.1007/s10933-015-9860-4>
- 2015** **G. Jay Kerns**. *Extreme Spread and Group Size Optimality under the Laplace Model in the Handloading Context*. Under review by *The American Statistician*
- 2015** Huming Zhang, Bo Li, **G. Jay Kerns**. *From Feller's characterization of discrete ID to discrete quasi ID and integer-valued quasi ID*. Under review by *Proc. Amer. Math. Soc.*
- 2011** I. Bairamov, B. Altinsoy, **G. Jay Kerns**. *On Generalized Sarmanov Bivariate Distributions*. **TWMS J. App. Eng. Math.** V.1, N.1, pp. 86–97.
- 2009** NC Landgraff, L Passek, **GJ Kerns**. *Implementation of the comprehensive assessment toolbox for stroke in a medical system*. **Rehabilitation Nursing**, Volume 34 (2), 70–77.

- 2009** Chang, G., **G. Jay Kerns**, D. J. Lee, and G. Stanek. *Calibration Experiments for a Computer Vision Oyster Volume Estimation System*. **Journal of Statistics Education**, Volume 17 (2).
- 2009** Learman, Kenneth E., PhD, PT; Joseph B. Myers, PhD, ATC; Scott M. Lephart, PhD, ATC; Timothy C. Sell, PhD, PT; **G. Jay Kerns, PhD**; and Chad E. Cook, PhD, PT. *Effects of Spinal Manipulation on Trunk Proprioception in Subjects with Chronic Low Back Pain During Symptom Remission*. **Journal of Manipulative and Physiological Therapeutics**. Volume 32, Number 2, 118–135.
- 2008** RJ Pohle-Krauza, EM Bader, ML McCarroll, **GJ Kerns**, M Carey. *Assessment of Habitual Dietary Intake of Firefighters: A Pilot Study*. **Journal of the American Dietetic Association**. Volume 108(9), A23.

## GNU General Public Licensed Software (latest release)

- 2014** G. Jay Kerns. **IPSUR: Introduction to Probability and Statistics Using R**. Version 2.0alpha. <http://ipsur.org>. R package version 1.5. <http://CRAN.R-project.org/package=IPSUR>
- 2014** G. Jay Kerns. **ob-julia.el**. GNU-Emacs Org Babel interface to the Julia technical computing language. <https://github.com/gjkerns/ob-julia>
- 2013** G. Jay Kerns. **prob: Elementary Probability on Finite Sample Spaces**. R package version 0.9-5. <http://CRAN.R-project.org/package=prob>
- 2012** G. Jay Kerns with contributions by Theophilus Boye, Tyler Drombosky and adapted from the work of John Fox et al. **RcmdrPlugin.IPSUR: An IPSUR Plugin for the R Commander**. R package version 0.1-8. <http://CRAN.R-project.org/package=RcmdrPlugin.IPSUR>

## Recent Grant Proposals

- July 20, 2009\*** *Mechanical Properties of Biological Tissue: Integration into Undergraduate Biology and Engineering Curricula*. National Science Foundation. Awarded Amount: \$149,592, Duration: 36 months, Co-Principal Investigator. Award ID: 0837615.
- May 15, 2009-2010\*** *PME Regional Undergraduate Mathematics Conference*. National Science Foundation via the Mathematical Association of America. Requested Amount: \$1,500, Duration: 12 months, Principal Investigator. NSF Grant DMS-0846477
- March 20, 2013** Department of Housing and Urban Development (Opportunity Number FR-5700-N-12). Proposal for Healthy Homes Technical Studies Program. Requested Amount: \$750,000, Duration: 36 months. Primary Staff Member. Submitted March 20, 2013 jointly with David Simon (PI) and Smart Environmental Engineering Consulting & Construction LLC. (Not funded)

## Selected Presentations and Workshops

- **Pre-Conference Day Tutorial**. *An Introduction to R*. useR! International Statistics Conference, The University of Warwick, England. August 4, 2011.
- **Conference Workshop**. *Org-mode: mathematical life in plain text*. Ohio MAA Spring Meeting, Youngstown State University. March 25, 2011.
- **Conference Presentation**. *The IPSUR Package*. useR! International Statistics Conference, The National Institute of Standards and Technology. July 21, 2010.
- **Conference Presentation**. (Joint with Richard Heiberger of Temple University.) *A plot Method for htest Objects*. useR! International Statistics Conference, The National Institute of Standards and Technology. July 21, 2010.
- **Invited Workshop**. (Joint with G. Andy Chang) *Introduction to R*. Cleveland Chapter of the American Statistical Association, Cleveland State University. November 11, 2010.
- **Conference Presentation**. *R Commander and Plugins: Using R in the Undergraduate Classroom*. Ohio MAA Section Meeting, Bowling Green State University. April 4, 2009.
- **Invited Colloquium**. *Monte Carlo Statistical Methods for Finite Exchangeable Sequences*. Bowling Green State University. January 30, 2009.

## Recent Meetings, Conferences, Conventions

- **Ohio MAA Conference**, Capital University. October 23, 2015.
- **Ohio MAA Conference**, Wittenberg University. October 30–31, 2014.
- **YSU MathFest**, Youngstown State University. October 18, 2012.
- **useR! International Conference**, University of Warwick, England. August 5–8, 2011.
- **Ohio MAA Conference**, Youngstown State University. March 25–26, 2011.
- **YSU MathFest**, Youngstown State University. November 5, 2010.
- **MAA MathFest Annual Conference**, University of Pittsburgh. August 5–6, 2010.
- **useR! International Conference**, National Institute of Standards and Technology. July 20–23, 2010.
- **Pi Mu Epsilon Regional Conference**, Youngstown State University. February 27, 2010.
- **YSU MathFest**, Youngstown State University. November 19, 2009.
- **Ohio MAA Conference**, Kenyon College. October 30–31, 2009.
- **Ohio MAA Conference**, Bowling Green State University. April 3–4, 2009.
- **International Symposium on Topology**, Youngstown State University. March 27–28, 2009.
- **Pi Mu Epsilon Regional Conference**, Youngstown State University. February 21, 2009.
- **YSU MathFest**, Youngstown State University. November 20, 2008.

## Recent Supervised Graduate Theses

2014 Tara McCart

*A Statistical Analysis of Witchcraft Accusations in Colonial America: A Time Series Count Data Analysis*

## Supervised Masters Projects

2015	Tram Le	<i>A Pre-Post Survey Analysis of Student Perceptions on Writing Assignments as the Result of the Course General Biology: Organisms and Ecology</i>
	Bradley Craig	<i>Projecting Daily Fantasy Basketball using Neural Networks</i>
2014	Jenna Hallapy	<i>Forecasting and Back-Testing Value-at-Risk with Parametric and Nonparametric Models in R</i>
	Olivia Atutey	<i>Forecasting Hawaii's Employment with Factor Models</i>
2013	Linus Addae	<i>Analyzing the Trend of Performance of the Manchester United Football Club in the 1960-2013 English Premiership</i>
	Jonah Amponsah	<i>Time Series Analysis of the Civilian Labor Force Participation Rate of the United States of America</i>
	Bismark Amenyo	<i>Time Series Analysis of the Seasonally Adjusted Monthly Unemployment Rates of the United States of America</i>
2011	Michael Stanek	<i>A Statistical Procedure of Predicting Winners</i>
	Brigitte Flick	<i>Recycling and Enrollment at Youngstown State University</i>
2010	Steve Ampah	<i>Measuring the Effectiveness of Different Doses of Ribavirin Drug on Patients with Acquired Immune Deficiency Syndrome (AIDS)</i>
	Lordlin Owusu	<i>Determinants of Forest Burned Area Using Meteorological Factors and Four Components of the Forest Weather Index</i>
	Srinivasa Manam	<i>Time - Dependent Functional Analysis of Mixed Paper Recycling</i>
2009	Sasha Annan	<i>Prediction of Concrete Compressive Strength Using Robust Regression</i>
2008	Ebenezer Emos	<i>The Impact of the National Firearms Agreement (NFA) of 1997 on Firearm Homicide and Suicide in Australia using Time Series Techniques</i>
	Paul Twum-Barima	<i>Redistricting of Ohio Skilled Nursing Facilities: a Cluster Analysis Approach</i>
	Reuben Adatarwovor	<i>The Efficacy of Economic Indicator Variables on the Federal Funds Rate</i>
	Joseph Essilfie	<i>Univariate GARCH Modeling of Financial Asset Volatility</i>

## Supervised Undergraduate Capstones

2011	John Pallini	<i>The Price is Right: Probability Unit Plan</i>
2010	Stacey Mulder	<i>YAHTZEE: What's Your Probability</i>
2008	Erica Cross	<i>Sample correlation in the presence of Type II Censoring</i>

## Graduate and Swing Courses Taught (number of semesters)

STAT 4857 & 5857	Statistical Consulting (2)
STAT 5840	Statistical Computing (4)
STAT 5817 & 6940	Applied Statistics (1)
STAT 5843 & 6943	Theory of Probability (7)
STAT 5844 & 6944	Theory of Statistics (4)
STAT 5846	Categorical Data Analysis (2)
STAT 5848 & 6948	Applied Regression & Time Series (4)
STAT 5895 & 6995	Special Topics: Bayesian Statistics (1)
STAT 5895 & 6995	Special Topics: Data Mining (1)
MATH 6996	Mathematical Project (10+)
MATH 6999	Thesis (1)

## Selected University Service (since last Promotion)

Fall 2016	Technology Committee
Summer 2016	Grievance Committee
Fall 2015	Patent and Intellectual Property Review Cmte
Spring 2015	University Research Council Grant Reviewer
S15 – Present	Graduate Studies Policy Committee
F14 – Present	Graduate Program Director
F07 (2 yr term)	Statistics Coordinator
F07 – X11	Graduate Executive Committee
F07 – F09	Dean’s Advisory Council
F04 – Present	Statistics Committee, (C) in 2007
2 years	STEM Promotion Committee

## Discipline Related Service

2006– Online Registration Coordinator for the Ohio Section of the MAA

## Scientific, Technical, and Professional Societies

- Mathematical Association of America
- American Statistical Association

## Selected Public Service

<b>2015</b>	Treasurer	<i>Chinese Association of the Greater Youngstown Area</i>
	Den Leader	<i>Canfield Cub Scouts Pack 9025, Greater Western Reserve Council</i>
<b>2014</b>	U5 Soccer Coach	<i>Boardman Soccer Association, Ohio Youth Soccer Association</i>
		<i>North</i>