

# Sheida Riahi, PhD

Instructor of Quantitative Analysis

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## EDUCATION

- 2015 to 2020** **Ph.D in Mathematical Sciences (Statistics)**, Department of Mathematics and Statistics, Mississippi State University, August 2020, (<http://www.math.msstate.edu/>).  
GPA 4.00
- 2015** **M.Sc. in Statistics**, Department of Mathematics and Statistics, Mississippi State University, (<http://www.math.msstate.edu/>).  
GPA 4.00
- 2011** **M.A. in Art History**, Department of the History of Art, Indiana University Bloomington, Thesis title: "The Virgin Mary in Mughal Painting: From Madonna Lactans to the Divine Hikmah", (<https://arthistory.indiana.edu/>).  
GPA 3.83
- 2004** **B.Sc. in Physics**, Department of Physics, Isfahan University of Technology, (<http://www.iut.ac.ir/en>).  
GPA 16.32/20

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## RESEARCH INTERESTS

- Statistics Financial Statistics, Applications of Statistics in education, Mathematical Statistics, Machine Learning, Data mining, Big Data, and Biostatistics.
- Art Persian and Arabic language and literature, Book Arts, Persian and Mughal Painting, Sacred Geometry Art, Comparative Art Studies, Calligraphy, Illumination, and Miniature Painting.

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## TEACHING AND TUTORING EXPERIENCE

- August 2020-Present** **Lecturer of Quantitative Analysis**, *Business Statistical Methods I*, Department of Marketing, Quantitative Analysis and Business Law, Mississippi State University.
- August 2014-August 2020** **Graduate Teaching Assistant (Teaching)**, *Introduction to Statistics*, Department of Mathematics and Statistics, Mississippi State University.
- January 2017 - May 2018** **Instructor (Part-time)**, *Business Statistics Methods I*, Department of Marketing, Quantitative Analysis and Business Law, Mississippi State University.
- August 2014-2016** **Graduate Teaching Assistant (Tutor for Mathematics and Statistics)**, *Differential Equations, Calculus I and II, College Algebra, Intermediate Algebra, Introduction to Statistics, Business Statistics I and II, Psychology and Education Statistics, and Forestry Statistics*, Learning Center, Department of Mathematics and Statistics, Mississippi State University.
- August 2014-2016** **Graduate Teaching Assistant (Assisting at the Computer Lab)**, *College Algebra, Intermediate Algebra, Precalculus, Statistics*, Math Domain, Department of Mathematics and Statistics, Mississippi State University.
- Fall 2014 and 2013** **Instructor (Part-time)**, *Survey of Islamic Art and Architecture*, online, Department of Art, Mississippi State University.

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## REFEREED JOURNAL PUBLICATIONS

- [1] **Sheida Riahi and Prakash N. Patil**, *Testing for central symmetry and symmetry about an axis*, Communications in Statistics - Simulation and Computation, Taylor & Francis, 03 Jan 2021.

- [2] **Sheida Riahi**, *Appendix 3.2 to Heather Coffey's article entitled "Between Amulet and Devotion: Islamic Miniature Books in the Lilly Library"*, *The Islamic Manuscript Tradition: Ten Centuries of Book Arts in Indiana University Collections*, ed. Christiane Gruber, (Bloomington: Indiana University Press, 2010) 78-115.

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## IN PREPARATION

- [1] **Sheida Riahi and Prakash N. Patil**, *Measuring Bivariate Asymmetry and Testing Bivariate Symmetry based on a Necessary Condition*, In process of submission (2021).
- [2] **Sheida Riahi and Prakash N. Patil**, *Measuring Bivariate Asymmetry based on a Necessary and Sufficient Condition*, In process of submission (2021).

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## OTHER WORK EXPERIENCE

**Graduate Teaching Assistant**, *Design and Analysis of Experiments (Graduate Course)*, Department of Mathematics and Statistics, Mississippi State University.  
August 2016 to December 2016

**Graduate Teaching Assistant**, *Statistical Methods (Graduate Course)*, Department of Mathematics and Statistics, Mississippi State University.  
January 2017-May 2017

**Graduate Research Associate**, *National Strategic Planning and Analysis Research Center (NSPARC)*, Spring 2015, August 2015-May 2016.

**Intern**, *National Strategic Planning and Analysis Research Center (NSPARC)*, Summer 2015.

**Transcription of the Persian Text**, *For Prof. Christiane Gruber's book entitled The Ilkhanid Book of Ascension: A Persian-Sunni Devotional Tale*. London: I. B. Tauris, (University of Michigan, History of Art Department), 2010.

**Private Calligraphy Lessons**, *teaching students how to write the Arabic script in thuluth script, practicing the letters in both free-standing format and letter combinations*, Bloomington, IN, 2005-2010.

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## COURSES

### Courses Taught

- Undergraduate **Business Statistical Methods I**, *Face to face and Online*, Small and large Sections, Department of Marketing, Quantitative Analysis and Business Law, Mississippi State University.
- Undergraduate **Introduction to Statistics**, *Face to face*, Small and large Sections, Department of Mathematics and Statistics, Mississippi State University.
- Undergraduate **Islamic Art and Architecture**, *Online*, Department of Art, Mississippi State University.

### Courses Assisted

- Graduate **Statistical Methods**, *Department of Mathematics and Statistics, Mississippi State University*.
- Graduate **Design and Analysis of Experiments**, *Department of Mathematics and Statistics, Mississippi State University*.

### Courses Tutored

- Highschool **Higher Level Mathematics (International Bachloarte, Canada)**, *online*.
- Undergraduate **Differential Equations, Calculus I and II, College Algebra, Intermediate Algebra, Introduction to Statistics, Business Statistics I and II, Psychology and Education Statistics, Forestry Statistics, and Elementary and Advanced Level Persian**, *Mississippi State University*.
- Graduate **Psychology Statistics, Wood Sciences Statistics**, *Mississippi State University*.

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## AWARDS

- April 2018 Overall Winner in Physical, Mathematical, and Computational Science and Engineering, Graduate Research Symposium, Mississippi State University .
- January 2018 American Mathematical Society (AMS) Grad Student Travel Grant for the Joint Mathematics Meetings
- September 2017 Institute for Mathematics and its Applications (IMA) Travel Grant for Workshop on Innovative Statistics and Machine Learning for Precision Medicine
- March 2017 Doctoral Oral Presentation, Second Place, Graduate Research Symposium, Mississippi State University
- Spring 2012 Spirit Award Cotton District Arts Festival
- Summer 2006 Special Institute Fee Credit for the Language Summer Program at Indiana University (SWSEEL), Azerbaijani Language, \$6000.

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## SCHOLARLY PRESENTATIONS

**Sheida Riahi**, *Testing Central Symmetry in Bivariate Settings*, Mississippi State University, Department of Mathematics and Statistics, November 15, 2018.

**Sheida Riahi**, *Numerical Approach to Testing Central Symmetry in Bivariate Settings*, Joint Mathematics Meetings, January 13, 2018.

**Sheida Riahi**, *Numerical Approach to Testing Central Symmetry in Bivariate Settings*, Joint Mathematics Meetings, January 13, 2018.

**Sheida Riahi**, *Calligraphy: Music of the Eye*, Norooz Festival, Mississippi State University, March 22, 2017.

**Sheida Riahi**, *Measuring and Testing Central Symmetry in Bivariate Settings*, Joint Mathematics Meetings, January 6, 2017.

**Sheida Riahi**, *Testing Central Symmetry in Bivariate Settings*, Selected presentation, Mini-conference by Alabama Chapter of American Statistical Association, November 11, 2016.

**Sheida Riahi**, *Islamic Art of Calligraphy*, The Columbus-Lowndes Public Library, Bridging Cultures Bookshelf: Muslim Journeys Program funded by National Endowment for the Humanities and the American Library Association, Columbus, MS, November 13, 2013.

**Sheida Riahi**, *Golden Ratio: Ornamentations of Chehelsotoun, a Safavid Dynasty Palace in Isfahan, Iran*, Presented at MAA Session on Mathematics and the Arts: Practice, Pedagogy, and Discovery, Joint Mathematics Meetings, San Diego, CA, January 9, 2013.

**Sheida Riahi**, *Persian Architecture, Past and Present: Harmony with Nature*, Iranian New Year and Silk Road Festival, Mississippi State University, March 25, 2011.

**Sheida Riahi**, *Islamic Art of Calligraphy*, Voices and Visions, The Expressions of Islam: Islam is. . . , The John Waldron Arts Center, Bloomington, IN, February 21, 2009.

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## ONLINE PODCASTS

**Sheida Riahi**, *Arabic and Persian Calligraphy*, posted at Voices and Visions Website: Muslim Voices, (<http://muslimvoices.org/sheida-riahi-arabic-persian-calligraphy/>) November 17, 2008.

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## HONORS/FELLOWSHIPS

- 2013-Present Graduate Student Teaching Fellowship, Mississippi State University.

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## WORKSHOPS AND TRAININGS ATTENDED

**Teaching Statistics using R and RStudio**, MAA Minicourse at Joint Mathematics Meetings, San Diego, January 2018.

**Workshop on Innovative Statistics and Machine Learning for Precision Medicine**, Institute for Mathematics and its Applications (IMA), Minneapolis, MN, 14 - 16, 2017.

**Teaching Introductory Statistics, GAISE 2016, MAA Minicourses, Joint Mathematics Meetings, Atlanta, January 2017.**

**Paper Marbling, practicing the Persian art of Marbling with Master Pirouzram, 2014-2015.**

**Persian Calligraphy, specializing in nasta'liq script. I trained with several Iranian masters of calligraphy, including Master Forouzandeh, 1992-present.**

**Arabic Calligraphy, practicing the thuluth script with Master Aishah Elenor Holland, 2011-2012.**

**Arabic Calligraphy, practicing the thuluth script with Master Forouzandeh, 2000-2004.**

**Book Illumination, practicing the Islamic art of illumination with Master Pirouzram, 2000-2004.**

**Miniature Painting, working with Murad Khan Mumtaz, Fall 2009.**

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## SERVICE ACTIVITIES

- 2016 **Judging the art projects by Latin students, Mississippi State University Convention of Junior Classical League.**
- 2014 **Volunteer at the 10th differential equations and Numerical simulations, Mississippi State University.**
- 2012 **Persian and Arabic Calligraphy and Book Illumination Booth, Cotton District Art Festival.**
- 2011 **Persian and Arabic Calligraphy demonstration, Oktibbeha County Heritage Museum.**
- 2011 **Persian Calligraphy demonstration at Iranian New Year and Silk Road Festival, Mississippi State University.**
- 2010 **Persian and Arabic Calligraphy demonstration for the Indiana University International Outreach Council, Lotus Blossoms Bazaar for the Public School Students.**
- 2005 **Calligraphy, miniature painting, and book illustration demonstration at the Silk Road Festival, Silk Road Festival, IUB.**

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## PROFESSIONAL MEMBERSHIPS

AMS (American Mathematical Society)

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## COMPUTER SKILLS

**Scientific tools** Matlab, Mathematica, Octave, SAS, R

**General tools** Excel,  $\LaTeX$ , Adobe PhotoShop.

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## ART EXHIBITIONS

**Calligraphy Exhibition, Muslim Journeys (part of a program granted by the American Library Association), The Columbus-Lowndes Public Library. Columbus, Mississippi, November, 2013.**

**Individual Calligraphy and Persian Miniature Painting Exhibition, Mississippi Modern Homesteading Center. Starkville, Mississippi, August and September, 2013.**

**Calligraphy and Persian Miniature Painting Exhibition, Heritage Museum. Starkville, Mississippi, February 2013.**

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## LANGUAGES

English: Fluent, Persian: Native Speaker, French: Reading Knowledge, Azeri Turkish: Intermediate, Arabic: Intermediate, Latin: Elementary Proficiency

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## PERSONAL INTEREST

Philosophy, Languages, Calligraphy, Fishing, Traveling, Yoga, Volleyball, Badminton