

MD SHAMIM SARKER (WARASI*)

*Md Shamim Sarker is currently publishing under Md S. Warasi

Department of Math & Stat
Whitt 224
Radford University
Radford, VA 24142

phone: (540) 831-5026
email: msarker@radford.edu

EDUCATION

| | | |
|------|---|--|
| 2016 | Ph.D. in Statistics Advisor: Joshua M. Tebbs | University of South Carolina, Columbia, SC |
| 2011 | M.S. in Mathematics Advisor: Kumer Pial Das | Lamar University, Beaumont, TX |
| 2005 | B.S. in Mathematics | Jahangirnagar University, Bangladesh |

PROFESSIONAL EXPERIENCE

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|----------------|---|
| 2016 – present | Assistant Professor, Department of Mathematics and Statistics, Radford University |
| 2011 – 2016 | Teaching Assistant, Department of Statistics, University of South Carolina |
| 2008 – 2011 | Teaching/Research Assistant, Department of Mathematics, Lamar University |

CURRENT RESEARCH INTERESTS

Group testing (pool testing), measurement error models, latent model misspecification, statistical computing, applications in biology, epidemiology, and public health.

REFEREED PUBLICATIONS

- **Warasi, M.**, Tebbs, J., McMahan, C., and Bilder, C. (2016). Estimating the prevalence of multiple diseases from two-stage hierarchical pooling. *Statistics in Medicine*, **35**, 3851-3864.
- Huang, X. and **Warasi, M.** (2017). Maximum likelihood estimators in regression models for error-prone group testing data. *Scandinavian Journal of Statistics*, **44**, 918-931.
- **Warasi, M.**, McMahan, C., Tebbs, J., and Bilder, C. (2017). Group testing regression models with dilution submodels. *Statistics in Medicine*, **36**, 4860-4872.

OTHER PUBLICATIONS

- Das, K. and **Sarker, S.** (2009). A review of Panjer's recursion for evaluation of compound negative binomial distribution using R. *JSM Proceedings*, Statistical Computing Section. Alexandria, VA: American Statistical Association, 1121-1131.
- Das, K., **Sarker, S.**, and Diawara, N. (2011). Further review of Panjer's recursion for evaluation of compound negative binomial distribution using R. *Missouri J. Math. Sci. (MJMS)*, **23**, 182-191.

MANUSCRIPTS IN REVIEW/PREPARATION

- **Warasi, M.**, Tebbs, J., McMahan, C., and Bilder, C. (2018+). Using hierarchical group testing to estimate the prevalence of multiple diseases. In preparation.
- **Warasi, M.** and Tebbs, J. (2018+). Measurement error models for group testing data. In preparation.

FUNDED GRANTS (INTERNAL)

- Radford University, SEED Grant Program (May 2017 – May 2018). Group testing regression models in the presence of dilution effects. Total award: \$5,000. Role: PI.
- Radford University, ACSAT Faculty Research Program (Nov 2017 – Dec 2018). Using Hierarchical Group Testing to Estimate the Prevalence of Multiple Diseases. Total award: \$6,700. Role: PI.

TEACHING

• Radford University

| <u>Course</u> | <u>Semester</u> | <u>Cum. # of Students</u> |
|---------------|--|---------------------------|
| STAT 200 | Fall 2016, Spring 2017, Summer 2017 | 240 |
| STAT 301 | Spring 2017, Fall 2017 Spring 2018 | 120 |
| STAT 302 | Summer 2017 | 37 |
| STAT 330 | Spring 2018 | 15 |
| STAT 420 | Fall 2017 (online) | 15 |
| STAT 421 | Spring 2018 | 15 |

• University of South Carolina

| <u>Course</u> | <u>Semester</u> | <u>Cum. # of Students</u> |
|---------------|---|---------------------------|
| STAT 516 | Summer 2016 | 11 |
| MATH/STAT 511 | Summer 2015 | 9 |
| STAT 509 | Summer 2014, Spring 2015 | 70 |
| STAT 201 | Fall 2012, Spring 2013, Fall 2013, Spring 2014, Fall 2014, Fall 2015, Spring 2016 | 384 |

DEPARTMENTAL SERVICE

- Statistics Committee, 2016 – present
- Curriculum Committee, 2017 – present
- Scholarship Committee, 2016 – 2017

JOURNAL REFEREE

- Metrika
- Physica A
- REVSTAT (2)
- Journal of Statistics Education
- Statistics Education Research Journal
- Electronic Journal of Mathematics and Technology

HONORS AND AWARDS

- Travel Grant, NSF and University of South Carolina, 2016
- Citizenship Award, Department of Statistics, University of South Carolina, 2015
- Travel Grant, Department of Statistics, University of South Carolina, 2015
- Travel Grant, Graduate School, University of South Carolina, 2015
- Travel Grant, Department of Statistics, University of South Carolina, 2014
- Citizenship Award, Department of Statistics, University of South Carolina, 2014
- Dean's List of Scholarship for M.S. in Mathematics, Lamar University, 2008
- Swedish Bangladesh Trust Fund Travel Grant, 2008

CONSULTING EXPERIENCE

- Summer 2013, Stat Lab, University of South Carolina

PROFESSIONAL ORGANIZATIONS

- American Statistical Association (ASA)
- International Biometric Society (ENAR)

RESEARCH PRESENTATIONS

- Measurement error models for group testing data. ENAR Spring Meetings, Atlanta, Georgia, March 2018. Oral presentation by **Md S. Warasi**.
- Bayesian regression models for group testing in the presence of dilution effects. Joint Statistical Meetings, Baltimore, August 2017. Oral presentation by **Md S. Warasi**.
- Using hierarchical group testing to estimate the prevalence of multiple diseases. ENAR Spring Meetings, Washington DC, March 2017. Poster presentation by **Md S. Warasi**.
- Group testing regression models with dilution submodels. Latent Variables 2016, University of South Carolina, Columbia, October 2016. Poster presentation by **Md S. Warasi**.
- Group testing regression with dilution submodels. Joint Statistical Meetings, Seattle, August 2015. Oral presentation by **Md S. Warasi**.
- Estimating the prevalence of multiple diseases via two-stage hierarchical pooling. ENAR Spring Meetings, Miami, March 2015. Oral presentation by **Md S. Warasi**.
- Group testing regression with dilution submodels. South Carolina Chapter of the American Statistical Association Meeting, Columbia, March 2015. Oral presentation by **Md S. Warasi**.
- Estimating the prevalence of multiple diseases via two-stage hierarchical pooling. South Carolina Chapter of the American Statistical Association Meeting, Clemson, November 2014. Poster presentation by **Md S. Warasi**.
- Bayesian inference on prevalence and diagnostic test accuracy with group testing data for multiple infections. Department of Statistics, University of South Carolina, November 2013. Oral presentation by **Md S. Warasi**.
- Maximum likelihood estimators in regression models for error-prone group testing data. Department of Statistics, University of South Carolina, April 2013. Oral presentation by **Md S. Warasi**.
- Further review of Panjer's recursion for evaluation of compound negative binomial distribution using R. Conference of Texas Statisticians, College Station, March 2011. Poster presentation by **Md S. Warasi**.
- A review of Panjer's recursion for evaluation of compound negative binomial distribution using R. South Regional Council on Statistics, Virginia, June 2010. Poster presentation by **Md S. Warasi**.
- A review of Panjer's recursion for evaluation of compound negative binomial distribution using R. Joint Statistical Meetings, Washington, D.C., August 2009. Oral presentation by Kumer P. Das.