

# Siddhartha Nandy

snandy@purdue.edu

## Current position

2016- *Visiting Assistant Professor*, Dept. of Statistics, Purdue University

## Areas of specialization

Spatial statistics; High-dimensional methodology; Covariance estimation; Dimension reduction; Multi-resolution scheme; Computer calibration models

## Appointments held

2011-2016 Graduate Teaching and Research Assistant, Dept. of Statistics and Probability, Michigan State University.  
2014-2015 Content writer, e-Pathshala, Subject - Statistics, University Grant Commission, India (PI - Prof. Bhaswati Ganguli).  
2014 Research fellow and visitor, National Center for Atmospheric Research (NCAR), UCAR, IM-AGe Lab (Host - Prof. Douglas Nychka).  
2011 Consultant, Access Health International, India.  
2010-2011 Faculty, Public Health Foundation of India.

## Education

2016 PhD in Statistics, Michigan State University.  
2010 MSc in Statistics, Calcutta University.  
2008 BSc in Statistics, Calcutta University.

## Grants, honours & awards

2011-2016 PhD thesis partially funded by NSF grants.  
2013,2015,2016 Dissertation - Early Start, Continuation, Completion Fellowship by College of Natural Science, Michigan State University.  
2010 1<sup>st</sup> class 3<sup>rd</sup> MSc in Statistics, Calcutta University.  
2003 3<sup>rd</sup> in the 11<sup>th</sup> All India Road Safety Essay Competition conducted by Ministry of Road Transport and Highways and United Schools Organization of India.

## Publications & talks

### STATISTICS.

2017-2019 A comparative study on long and short range spatial dependence. (Working paper - Joint work with Prof. Hao Zhang and Piyas Chakraborty).  
2015-2019 **Nandy, S.**, Lim, C-Y., Maiti, T., Estimating Non-stationary Spatial Covariance Matrix using Multi-resolution Knots (Working paper - Technical report on Google Scholar).

- 2016 **Nandy, S.**, Lim, C. Y., Maiti, T. (2017). Additive model building for spatial regression. Journal of the Royal Statistical Society: Series B (Statistical Methodology), 79(3), 779-800.
- 2016 “Estimating Non-stationary Spatial Covariance Matrix using Multi-resolution Knots”, Contributed session, SIAM UQ 16, EPFL (2016).
- 2015 “A low rank kriging for large spatial data sets”, Invited session, Joint statistical meeting, Seattle, WA, USA (2015).
- 2014 “A Variable Selection Method for Spatial Additive Models with applications”, Topic Contributed Session, Joint Statistical Meeting, Boston, MA, USA (2014).
- 2013 “Variable Selection for Spatial Additive Models with applications”, Contributed Session, International Conference, Socio-Economic Challenges and Sustainable Solutions, C.R.Rao AIMSCS, University of Hyderabad, India (2013).
- 2013 “Variable Selection Techniques for Detecting Climate Change and Attribution”, Contributed Session, Joint Statistical Meeting, Montreal, QC, Canada (2013).

#### PUBLIC HEALTH.

- 2012 Babu, G. R., Sathyanarayana, T. N., Jana, S., **Nandy, S.**, Farid, M. N., Sadhana, S. M. (2012). Role of catch-up campaigns in improving immunization services in a developing country. Annals of Tropical Medicine and Public Health, 5(5), 441.
- 2011 Babu, G. R., Olsen, J., Jana, S., **Nandy, S.**, Farid, M. N., Sadhana, S. M., Kadam, S. (2011). Evaluation of Immunization Services in high-risk district in India. International Journal of Medicine and Public Health, 1(3).
- 2011 Babu, G., Olsen, J., Jana, S., **Nandy, S.**, Farid, M. (2011). Sadhana. Evaluation Of Immunization Cards And Parental Recall Against Gold Standard For Evaluating Immunization Coverage. Internet Journal of Epidemiology, 9.
- 2011 Babu, G., Singh, V., **Nandy, S.**, Jana, S., TN S, S. M. (2011). Supportive supervision and immunization coverage: Evidence from India. Internet J Epidemiology, 9.
- 2009 - 2011 Rao, M., Ramachandra, S. S., Chandran, A., Kishore, N., Anchala, R., **Nandy, S.**, Jana, S. (2009-2011). Near-term health effects of transport policies to reduce greenhouse gas emissions and improve health in the city of Hyderabad (Report submitted to Public Health Foundation of India Archive).

#### THESIS REPORTS.

- 2016 Nandy, S. (2016). High-dimensional variable selection for spatial regression and covariance estimation. Michigan State University (PhD Thesis).
- 2008 Nandy, S. (2008) Sample Size Calculation for Household Indoor Air Pollution (MSc Thesis).

## Teaching

#### INSTRUCTOR AT PURDUE

- STAT 350. Introduction to Statistics (9 semesters).
- STAT 416. Introduction to Probability (1 semester).
- STAT 512. Applied linear regression (Online - 1 semester).
- STAT 528. Mathematical Statistics (Ph.D. Qualifier preparation - 1 semester).

#### ASSISTANT AT MICHIGAN STATE

STT 200. Statistical Methods (Recitation).  
STT 315. Introduction to Probability and Statistics for Business (Recitation).

#### INSTRUCTOR AT PHFI

PGDBM Post Graduate Diploma in Biostatistics and Data management.

#### Volunteer

2018-2020 English Second Language tutor at KKGM high school for Ann Foundation (United Nations).

#### References

Prof. Chae-Young Lim  
Seoul National University  
twinwood@snu.ac.kr

Prof. Tapabrata Maiti  
Michigan State University  
maiti@msu.edu

Prof. Hao Zhang  
Purdue University  
zhanghao@purdue.edu