

CURRICULUM VITAE



MANAS RANJAN TRIPATHY

Assistant Professor
Department of Mathematics
NIT, Rourkela
Rourkela
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ACADAMIC RECORD

8 th July 2011 onwards:	Assistant Professor Department of mathematics NIT Rourkela, Odisha, India
11 th August 2010 – 7 th July 2011:	Assistant Professor Department of Mathematics IIIT, Bhubaneswar, Odisha, India
20 th November 2009 – 6 th August 2010:	Postdoctoral Fellow, Indian Statistical Institute New Delhi, India
25 th August 2003 to 6 th November 2009:	Ph. D. Department of Mathematics IIT Kharagpur, India

Research Topic: Statistical Decision Theory, Estimation Theory. Statistical Inference (parametric and non-parametric).

Title of Thesis in Ph.D: *“Estimation of Parameters Under Equality Restrictions”*

ACHIEVEMENTS/AWARDS

- Selected for **NBHM** (National Board for Higher Mathematics) Postdoctoral Fellowship in October 2009
- Selected for the position of Visiting Scientist at **Indian Statistical Institute** for my postdoctoral research work in November 2009.
- Received fellowship from **Indian Institute of Technology, Kharagpur** as JRF and SRF from August 2003 to March 2007.
- Received fellowship from **CSIR(India)** as a **SRF** from April 2007 to March 2009.
- Qualified **GATE**, (MHRDG) India, in 2003.
- Qualified for direct **SRF(CSIR)** in April 2007.
- Awarded **National Scholarship** for 2000-2002 for meritorious performance in B.Sc.
- Awarded **“The Samaja”** scholarship for meritorious performance in the year 2000.
- Awarded **Merit Scholarship** during 2001 for meritorious performance in M.Sc.
- Secured **3rd rank in B.Sc.** Utkal University, Bhubaneswar, Odisha
- Secured **3rd rank in M.Sc.** Utkal University, Bhubaneswar, Odisha

RESEARCH INTEREST

- **Point estimation of parameters or functions of parameters using a decision theoretic approach**
 - Estimation under equality and inequality restrictions.
 - Bayesian analysis and hypothesis testing
 - Minimavity and admissibility of estimators.
 - Non parametric inference with a decision theoretic approach.
 - Estimation using censored samples from a decision theoretic point of view.

Papers Published/Accepted for Publication in Referred Journals

- Adarsha Kumar Jena, Manas Ranjan Tripathy and Nabendu Pal (2019). Alternative Estimation of Common Mean of Two Normal Populations with Order Restricted Variances. *REVSTAT* (To Appear).
- Nadiminti Nagamani and **Manas Ranjan Tripathy** (2019). Improved Estimation of Quantiles of Two Normal Populations with Common Mean and Ordered Variances. *Communications in Statistics –Theory and Methods* (DOI:10.1080/03610926.2019.1604964)
- Adarsha Kumar Jena and **Manas Ranjan Tripathy** (2018). Bayesian estimation of common scale parameter of two exponential populations with order restricted locations. *American Journal of Mathematical and Management Sciences*, (DOI:10.1080/01966324.2018.1534629).
- Nadiminti Nagamani and **Manas Ranjan Tripathy** (2018). Estimating common dispersion parameter of several inverse Gaussian populations: A simulation study. *Journal of Statistics and Management System* (DOI:10.1080/09720510.2018.1503406)
- **Manas Ranjan Tripathy**, Adarsha Kumar Jena and Somesh Kumar (2018). Equivariant estimation of quantile vector of two normal populations with a common mean. *Hacettepe Journal of Mathematics and Statistics (To Appear)*
- Adarsha Kumar Jena and **Manas Ranjan Tripathy** (2018). Estimating ordered quantiles of two exponential populations with a common minimum guarantee time. *Communications in Statistics –Theory and Methods* (DOI:10.1080/03610926.2018.1478100)
- **Manas Ranjan Tripathy** (2018). Improved estimation of common location of two exponential populations with order restricted scale parameters using censored samples. *Communications in Statistics-Simulation and Computation* V. 47, 9, (<https://doi.org/10.1080/03610918.2017.1361974>)
- Suchandan Kayal and **Manas Ranjan Tripathy** (2018). A quantile-based Tsallis- α divergence, *Physica A*, Vol 492, 496-505.
- Nadiminti Nagamani and **Manas Ranjan Tripathy** (2017). Estimating common scale parameter of two gamma populations: A simulation study. *American Journal of Mathematical and Management Science*, Vol. 36, 4, (<https://doi.org/10.1080/01966324.2017.1369473>).

- Adarsha Kumar Jena and **Manas Ranjan Tripathy** (2017). Estimating Quantiles of Two Exponential Populations with a Common Location Parameter Using Censored Samples. *Journal of Statistical Theory and Applications*, Vol.17, 1, 136-145, ([doi:10.2991/jsta.2018.17.1.10](https://doi.org/10.2991/jsta.2018.17.1.10)).
- **Manas Ranjan Tripathy** and Nadiminti Nagamani (2017). Estimating common shape parameter of two gamma populations: A simulation study, *Journal of Statistics and Management Systems*, Vol 20, 3, (<https://doi.org/10.1080/09720510.2017.1292688>).
- Adarsha Kumar Jena and **Manas Ranjan Tripathy** (2017). Estimating Ordered Scale Parameters of Two Exponential Populations With a Common Location Under Type-II Censoring. *Chilean Journal of Statistics*, Vol 8, 1, 87-101
- **Manas Ranjan Tripathy**, Somesh Kumar and Adarsha Kumar Jena (2017). Estimation of quantiles of several normal populations with a common mean. *Communications in Statistics-Theory and Methods*, Vol 46, 11, 5656-5671. **Impact Factor: 0.426, 2014 Impact Factor: 0.274, SCIE**
- **Manas Ranjan Tripathy** and Somesh Kumar (2015). Some inadmissibility results for estimating quantile vector of several exponential populations with a common location parameter. (To Appear in *REVSTAT*), **SCIE, IF 1.40**
- **Manas Ranjan Tripathy** (2016). Equivariant estimation of common location parameter of two exponential populations using censored samples. *Haceteppe Journal of Mathematics and Statistics*, 45(4), 1307-1320. **SCIE, IF 0.55**
- **Manas Ranjan Tripathy** and Somesh Kumar (2015). Equivariant estimation of common mean of several normal populations. *Journal of Statistical Computation and Simulation*. 85(15), 3679-3699. **SCIE, IF 0.78**
- **Manas Ranjan Tripathy**, Somesh Kumar and Neeraj Misra (2014). Estimating the common location of two exponential populations under order restricted failure rates. *American Journal of Mathematical & Management Sciences*, 33, 125-146. **IF NA**
- **Manas Ranjan Tripathy** and Nabendu Pal (2015) A note on estimation of a distribution function in a nonparametric set-up using Stein's shrinkage estimation technique. *Communications in Statistics- Simulation and Computation*, 44 (2015), 2731-2741
Impact Factor: 2012 5-Year Impact Factor: 0.515
2014 Impact Factor: 0.325, SCIE

- **Manas Ranjan Tripathy**, Somesh Kumar and Nabendu Pal (2013). Estimating common standard deviation of two normal populations with ordered means. *Statistical Methods & Applications, Journal of the Italian Statistical Society*, Vol. 22(3), 305-318 . Online published 21 November 2012.
2012 Impact Factor: 0.351, SCIE , IF 0.66
- **Manas Ranjan Tripathy** and Somesh Kumar (2011). Estimating Common Mean of a Bivariate Normal Population with Order Restricted Variances, *Calcutta Statistical Association Bulletin*, Volume- 63,157-180, Nos-249-252.
Impact Factor: Not available but it is a very good Journal
- **Manas Ranjan Tripathy** and Somesh Kumar (2011). Simultaneous estimation of quantiles of normal populations with ordered means. *Journal of Combinatorics, Information and System Sciences: A Quarterly International Scientific Journal* Vol-36, No-1, pages 75-102, MD Publications private limited.
Impact Factor: Not available but it is a very good Journal.
- Somesh Kumar and **Manas Ranjan Tripathy** (2011) Estimating quantiles of normal populations with a common mean. *Communications in Statistics-Theory and Methods*. Volume 40, Issue 15, August 2011, pages 2719-2736, Taylor & Francis, Inc., 325 Chestnut Street, Suite 800, Philadelphia, PA 19106.
Impact Factor: 0.426, 2014 Impact Factor: 0.274, SCIE
- **Manas Ranjan Tripathy** and Somesh Kumar (2010) Estimating a common mean of two normal populations. *Journal of Statistical Theory and Applications*. Vol. 9, Number 2, pp. 197-215, Gowas Publishers, 274 Sydney Road, Holland PA 18955, USA.
Impact Factor: Not available but it is a very good Journal.

Research Papers/Abstracts Presented /accepted in Conferences

- Somesh Kumar and **Manas Ranjan Tripathy** (2007) On estimating quantiles of a normal population. **Symposium on Recent Advances in Mathematical Sciences**, Feb 16-17, 2007, IIT Kanpur.(*Abstract published*)
- ***Manas Ranjan Tripathy** and Somesh Kumar (2007) On estimating quantiles in a bivariate normal population with common mean. **34th Ann. Conf. of Orissa Mathematical Society**, 28-29 Jan, 2007. (*Abstract published*)
This paper was adjudged the best paper in the student presentation category.
- **Manas Ranjan Tripathy** and Somesh Kumar (2007) Estimating the common scale parameter of k (≥ 2) Pareto populations. **International Conference on Statistics**, Univ. of Mumbai, May 31-June 2, 2007.(*Abstract published*)

- **Manas Ranajn Tripathy** and Somesh Kumar (2008) Simultaneous estimation of quantiles of several exponential populations. **International Conference on Statistical Paradigms: Recent advances and reconciliations**, Jan 1-4, 2008, Indian Statistical Institute, Kolkata. (*Abstract published*)
- **Manas Ranjan Tripathy** and Somesh Kumar (2008) Simultaneous estimation of quantiles of several exponential populations with a common scale. **35th Ann. Conf. of Orissa Mathematical Society**, 2-3 Feb, 2008. (*Abstract published*)
- ***Manas Ranjan Tripathy** and Somesh Kumar (2007) Simultaneous estimation of ordered quantiles of two normal populations with a common variance. (Abstract of this paper was accepted for presentation in the **International Conference on Multiple Decision Theory, Statistical Inference and Applications in the honour of Deng-Yuan-Huang**, 28-30 December-2007 at Taipei, Taiwan.) *Abstract published*
- **Manas Ranjan Tripathy** and Somesh Kumar (2008) Simultaneous estimation of quantiles of two normal populations. **Open House-2008, April 4-6, 2008, Department of Mathematics and Statistics, IIT Kanpur.**
- Somesh Kumar and **Manas Ranjan Tripathy** (2007) Estimating Quantiles of Normal Populations. **Interdisciplinary Mathematical & Statistical Techniques (Shanghai 2007)** May 20-23, 2007 University of Science and Technology of China, Hefei, Anhui, P.R. China. (*Abstract Published*)
- **Manas Ranjan Tripathy** and Somesh Kumar (2009). Estimating common mean of a bivariate normal population with order restricted variances. **Seventh International Triennial Calcutta Symposium on Probability and Statistics, December 28-31, 2009, Department of Statistics, Calcutta University, Kolkata, India.**
- **Manas Ranjan Tripathy** and Somesh Kumar (2014). Equivariant estimation of common mean of several normal populations. *International Conference on Statistics and Information Technology for a Growing Nation In Conjunction with XXXIV Annual Convention of Indian Society for Probability and Statistics (ISPS)*. Department of Statistics (UGC-SAP-DRS-I & DST-FIST SPONSORED) Sri Venkateswar University, Tirupati & Indian Statistical Institute, Kolkata. 30th November 2014 to 2nd December 2014.
- **Manas Ranjan Tripathy** and Nadiminti Nagamani (2015). Estimating common shape parameter of two gamma populations, *International Conference on New Horizons in Statistical Modelling and Applications (NHSMA-2015)*, Presidency College, Chennai, Feb 27-28, 2015.
- **Manas Ranjan Tripathy** and Adarsha Kumar Jena (2015). Simultaneous estimation of quantiles of two exponential populations with a common location and ordered scale parameters, *International Conference on New Horizons in*

Statistical Modelling and Applications (NHSMA-2015), Presidency College, Chennai, Feb 27-28, 2015.

- Nadiminti Nagamani and **Manas Ranjan Tripathy** (2015). Estimating common scale parameter of two gamma populations. ***SRAESD-2015 International Conference on Statistics and Related Areas for Equity, Sustainability and Development In Conjunction with XXXV Annual Convention of Indian Society for Probability and Statistics (ISPS)*** 28th-30th November 2015, Organized by Department of Statistics, University of Lucknow, Lucknow, India-226007.
- Adarsha Kumar Jena and **Manas Ranjan Tripathy** (2015). Estimating quantiles of two exponential populations with common scale and ordered location parameters. ***SRAESD-2015 International Conference on Statistics and Related Areas for Equity, Sustainability and Development In Conjunction with XXXV Annual Convention of Indian Society for Probability and Statistics (ISPS)*** 28th-30th November 2015, Organized by Department of Statistics, University of Lucknow, Lucknow, India-226007.
- Manas Ranjan Tripathy (2015). Simultaneous estimation of quantiles of two normal population with mean, IISA International Conference On Celebrating Statistical Innovation and Impact in a World of Big and Small Data. ***IISA International Conference On Celebrating Statistical Innovation and Impact in a World of Big and Small Data***, Organized by department of Statistics, Savitribai Phule University Pune-411007 and International Indian Statistical Association. (Invited as speaker)
- Adarsha Kumar Jena and **Manas Ranjan Tripathy** (2016). Improved estimation of quantiles of two exponential populations with a common location parameter using censored samples. ***International Workshop on Reliability Theory and Survival Analysis, November 3-5, 2016*** organized by the department of Statistics and Center for Advanced Studies, Savitribai Phule Pune University, Pune-411007, India.
- Adarsha Kumar Jena and Manas Ranjan Tripathy (2016). Improved estimation of ordered quantiles of two exponential populations with a common location. ***Platinum Jubilee International Conference on "Applications of Statistics"*** Organized by Department of Statistics, University of Calcutta, December 21-23, 2016.
- Adarsha Kumar Jena and Manas Ranjan Tripathy (2017). Estimating quantiles of two exponential populations under ordered locations using censored samples. ***Third International Statistics Conference on Statistics for Good Governance***, Organized by Institute of Applied Statistics, Colombo, Sri Lanka.

Sponsored Reasearch Project and Consultancy

Sl. No.	Title of the project	Funding agency	Total Financial outlay	Year of start & total period	Names of P.I.	Status
1	Recovery of Inter-Block Information in Some Non-Normal Statistical Models	Department of Science & Technology (DST), India	10,80,000 INR	October 2013 for 3 years	Dr. Manas Ranjan Tripathy	Completed on October 2016
2	Estimating Parameters of Certain Generalized Life-Time Statistical Models Using Censored Samples	Department of Science & Technology (DST), India	18,07,520 INR	June 2018 for 3 years	Dr. Manas Ranjan Tripathy	On going

Ph.D Guidance

Sl. No	Name of Ph.D student	Status	Remark
1	Adarsh Kumar Jena	Awarded	Institute Scholar
2	Nadiminti Nagamani	Submitted	Project Scholar
3	Puskhal Kumar	On going	Institute Scholar
4	H Khatun	On going	Institute Scholar
5	Mojammel H Sarkar	On going	Project Scholar

M.Sc./B.Tech Project Guidance

Sl. No	Name of Student	Status	Remark
1	Sulagna Mohanty	Completed(2011-12)	M.Sc.(2 year)
2	Satarupa Ratha	Completed(2011-12)	M.Sc.(2 year)
3	Subhasmita Sahoo	Completed(2013-14)	M.Sc.(2 year)
4	Barsa Priyadarsini Sarangi	Completed(2013-14)	M.Sc.(2 year)
5	Prashant Tiwari	Completed (2014-15)	Int. M.Sc.

6	Gopalkrishna Dila	Completed (2014-15)	Int. M.Sc.
7	Raj Kumar	Completed	Int. M.Sc.
8	Ashit Kumar Nayak	Completed	Int. M.Sc.
9	Suvransu kumar Sahoo	Completed	Int. MSc
10	Bharat Kumar	Completed	2 Yr MSc
11	Vinod Kumar	Completed	2 Yr MSc
12	Happy Kumar	Completed	Int. M.Sc.
13	Kalyan Berman	Completed	2Yr M.Sc.
14	Pushkal Kumar	Completed	2 Yr. M.Sc.
15	Saileza Dash	On going	Int. M.Sc.
16	Debasis Sahoo	On going	Int. M.Sc.
17	Kirti Sahoo	On going	2 Yr. M.Sc.
18	Subham Sarkar	On going	2 Yr. M.Sc.

Seminar/Talk given as an Invited Speaker

- **Manas Ranjan Tripathy** and Somesh Kumar (2012). Estimating a common mean and quantiles of two normal populations. **99th Indian Science Congress Association** held at KIIT Bhubaneswar, India, from 3rd January 2012-7th January 2012.
- **Manas Ranjan Tripathy** and Somesh Kumar (2012). Estimating Quantiles of normal populations under order restrictions. **International Conference on Frontiers of Statistics and Its Applications (ICONFROST-2012) In Conjunction with XXXII(32nd) Annual Convention of Indian Society for Probability and Statistics(ISPS)**, December 21-23, 2012. This was held at Department of Statistics, Pondicherry University (A Central University), Puducherry, India.
- **Manas Ranjan Tripathy** (2015). Simultaneous estimation of quantiles of two normal populations with a common mean. **IISA International Conference on Celebrating Statistical Innovation and Impact in a World of Big and Small Data**, December 20-24. This was organized by Department of Statistics, Savitribai Phule Pune University, Pune and International Indian Statistical Association.
- **Manas Ranjan Tripathy** (2017). Estimating Ordered Quantiles of Two Exponential Populations With a Common Scale Using Censored, **Proceedings of the International Statistics Conference 2017, Statistics for Good Governance**, Organized by Institute of Applied Statistics Sri Lanka(IASSL), Department of Mathematics and Statistics, University of

Maryland Baltimore County (UMBC), USA, and Department of Mathematics, University of Moratuwa, Sri Lanka held during December 28-29 2017.

Workshop/Symposium Attended

- I attended a Workshop on Multivariate Statistical Analysis at IIT Bhubaneswar on 26th March 2011.
- Participated in the “Symposium on Recent Trends and Emerging Applications of Mathematical Sciences” held during 16th May to 17th May 2013 in the Department of Mathematics, NIT Rourkela, sponsored by DST(Govt. of India), CSIR(Govt. of India) and INSA New Delhi.

Seminar/Talk

- Estimation of a common mean of two normal populations: A review. Talk given during my Ph.D at **IIT Kharagpur** August 2004.
- Estimation of quantiles with a common mean of normal populations. Talk given during my Ph.D at **IIT Kharagpur** October 2005
- Estimation of a common mean and quantiles of two normal populations. Talk given at **Indian Statistical Institute**, Delhi 6th January 2010.
- Estimation of parameters under equality restrictions. Seminar delivered on 15th July 2009 during my synopsis for PhD at **IIT Kharagpur**.
- Estimation of parameters under equality restrictions. Seminar delivered on 6th November 2009 during my PhD viva voc at **IIT Kharagpur**.
- Estimating a common mean and quantile of two normal populations, An invited talk at 99th Indian Science Congress, KIIT Bhubaneswar, India.

OTHER RELEVANT INFORMATION

Computer knowledge/ software used:

- I have extensively used simulation of random variables in my research work. I have developed simulation programs for various distributions (normal, exponential, gamma, pareto) including multivariate distributions.
- I have experience of working on WINDOWS 98/2000, WINDOWS XP, WINDOWS VISTA, SOLARIS, UNIX, LINUX operating systems.
- I have developed proficiency in MATHEMATICA, STATISICA, ORIGIN, XL, MATLAB, SAS, R, FORTRAN, C, C++, LaTeX, MSword, MSoffice etc.

Teaching/Research experience:

- Assistant Professor, Department of Mathematics, **NIT Rourkela** from 8th July 2011 onwards.
- Lecturer in the Department of Mathematics, **IIIT Bhubaneswar** from 11th August 2010-7th July 2011.

- I was a visiting scientist at **Indian Statistical Institute** (ISI), Delhi for the period 20th Nov 2009-7th August 2010.
- During my research work I have taken the tutorial classes for Mathematics-I and Mathematics- II courses during 2005-2006 and 2006-2007 for 4 semesters, for first year B. Tech. students at IIT Kharagpur. Also I was the teaching assistant for the same course.
- I have conducted simulation lab classes for Masters of Statistics students for the period 2006-2007 and 2007-2008.

My ambition is to make a career in research and teaching. I joined as a Research Scholar on 25th August 2003 under the supervision of Prof Somesh Kumar in the Department of Mathematics, IIT Kharagpur, India. My broad area of research is Statistical Inference and Statistical Decision Theory.

I have successfully completed the following courses during the Ph.D. program .

- Algorithm Analysis and Data Structure,
- Programming Language C and C++
- Advanced Numerical analysis,
- Computational statistics,
- German Language.

Subject taught in undergraduate(B.Tech) level:

- MA101(Differential Equations) (**class size 220**)
- MA102(Matrix Theory, Vector Calculus and Fourier Analysis) (**class size 110**)
- MA201(Probability, Statistics and Numerical Methods) (**class size 110**)
- Calculus (**class size 65**)
- Discrete Mathematics (**class size 60**)
- MA202(Complex Analysis and Partial Differential Equations) (**class size 100**)
- Probability Theory
- Statistics Laboratory Using Different Software.

Subject taught in Postgraduate(P.G/M.Sc) level:

- Probability and Statistics (**class size 50**)
- Statistical Inference (for PhD students)
- Mathematical Statistics (**class size 30**)
- Statistical Methods (**class size 30**)
- Linear Algebra (**class size 30**)
- Real Analysis (**class size 35**)

- Statistics Lab (**class size 35**)
- Lab works on real life problems (**class size 30**)

Professional Membership:

- Life member of IISA (International Indian Statistical Association).
- Life member of ISPS (Indian Society for Probability and Statistics).
- Member of Indian Science Congress.
- Member of Odisha Mathematical Society.

Extra Academic Outreach Activity

1. Reviewer :

- **American Journal of Mathematical and Management Sciences**
- **STAT**
- **Iranian Journal of Science and Technology: Transactions A: Science**
- **International Journal of Fuzzy Computation and Modeling (IJFCM)**
- **International Journal of Mathematics and Statistics**