Curriculum Vitae

Debasis Mishra

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Contact Information

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Personal Information

Birthdate: June 30, 1977; Citizenship: India; Married on January 31, 2005; Children: 2 sons
- born on April 13, 2007 and July 02, 2013.

Academic Appointments

2015 December - Present	Professor
	Indian Statistical Institute, New Delhi
2011 July - 2015 December	Associate Professor
	Indian Statistical Institute, New Delhi
2006 Sept - 2011 June	Assistant Professor
	Indian Statistical Institute, New Delhi
2005 Oct - 2006 May	Visiting Scientist, Dept. of Computer Science and Automation.
	Indian Institute of Science, Bangalore, India.
2004 Sept - 2005 Aug	Post-doc Fellow in Operations Research.
	Center for Operations Research and Econometrics (CORE)
	Université Catholique de Louvain (UCL), Belgium.

Education

Ph.D.	University of Wisconsin, Madison, WI, USA.
	Industrial Engineering, August 2004.
M.S.	University of Wisconsin, Madison, WI, USA.
	Industrial Engineering, December 2002.
B.Tech.	Indian Institute of Technology (IIT), Kharagpur, India.
	Industrial Engineering and Management, June 1998.

Research Interests

theory of auctions and mechanism design, social choice theory, game theory.

Working Papers

1. *Robust procurement design* (with Sanket Patil and Alessandro Pavan), in preparation.

2. *Undominated monopoly regulation* (with Sanket Patil), current version: September, 2024

Journal Publications

1. *Rank-preserving multidimensional mechanisms: An equivalence between identical-object and hetero* (with Sushil Bikhchandani), **Journal of Economic Theory**, Volume 222, 2024.

2. *Selling to a manager and a budget-constrained agent* (with Kolagani Paramahamsa), **Journal of Mathematical Economics**, Volume 115, 2024.

3. *Symmetric reduced form voting* (with Xu Lang), **Theoretical Economics**, Volume 19, 2024.

4. *Selling two identical objects* (with Sushil Bikhchandani), **Journal of Economic Theory**, Volume 200, 2022.

5. *Ordinal Bayesian incentive compatibility in random assignment model* (with Sulagna Dasgupta), **Review of Economic Design**, Volume 26, 2022.

6. *Pareto efficient combinatorial auctions: dichotomous preferences without quasilinearity* (with Komal Malik), **Journal of Economic Theory**, Volume 191, 2021.

7. *Strategy-proof multi-object allocation: Ex-post revenue maximization without wastage* (with Tomoya Kazumura and Shigehiro Serizawa), **Journal of Economic Theory**, Volume 188, 2020.

8. *Mechanism design without quasilinearity* (with Tomoya Kazumura and Shigehiro Serizawa), **Theoretical Economics**, Volume 15, 2020, pp 511-544.

9. *Continuity and Incentive Compatibility in Cardinal Voting Mechanisms* (with Lars Ehlers, Dipjyoti Majumdar, and Arunava Sen), **Journal of Mathematical Economics**, Volume 88, 2019, pp 31-41.

10. *Separability and decomposition in mechanism design with transfers* (with Swaprava Nath and Souvik Roy), **Games and Economic Behavior**, Volume 109, 2018, pp 240-261.

11. *A Simple Budget-balanced Mechanism* (with Tridib Sharma), **Social Choice and Welfare**, Volume 50, 2018, pp 147 - 170.

12. *Balanced Ranking Mechanisms* (with Yan Long and Tridib Sharma), **Games and Economic Behavior**, Volume 105, 2017, pp 9-39.

13. *Local Incentive Compatibility with Transfers* (with Anup Pramanik and Souvik Roy), **Games and Economic Behavior**, Volume 100, 2016, pp 149-165.

14. *Ordinal Bayesian Incentive Compatibility in Restricted Domains.* **Journal of Economic Theory**, Volume 163, 2016, pp 925-954.

15. *Mechanism Design with Two Alternatives in Quasi-linear Environments* (with Thierry Marchant). **Social Choice and Welfare**, Volume 44, 2015, pp 433-455.

16. *Implementation with Contingent Contracts* (with Rahul Deb). **Econometrica**, Volume 82, 2014, pp 2371-2393.

17. *Multidimensional Mechanism Design in Single Peaked Type Spacs* (with Anup Pramanik and Souvik Roy). **Journal of Economic Theory**, Volume 153, 2014, pp 103-116.

18. *Non-bossy Single Object Auctions* (with Abdul Quadir). **Economic Theory Bulletin**, Volume 2, 2014, pp 93-110.

19. *Implementation in Multidimensional Dichotomous Domains* (with Souvik Roy). **Theoretical Economics**, Volume 8, 2013, pp 431-466.

20. *Strategy-proof Partitioning* (with Souvik Roy). **Games and Economic Behavior**, Volume 76, 2012, pp 285-300.

21. *Roberts' Theorem with Neutrality: A Social Welfare Ordering Approach* (with Arunava Sen). **Games and Economic Behavior**, Volume 75, 2012, pp 283-298.

22. *Minimum Cost Arborescences* (with Bhaskar Dutta). **Games and Economic Behavior**, Volume 74, 2012, pp 120-143.

23. *Separability and Aggregation of Equivalence Relations* (with Dinko Dimitrov and Thierry Marchant). **Economic Theory**, Volume 51, 2012, pp 191-212.

24. *A Characterization of the Average Tree Solution for Tree Games* (with Dolf Talman). **International Journal of Game Theory**, Volume 39, 2010, pp 105-111.

25. *Characterization of Walrasian Equilibria of the Assignment Model* (with Dolf Talman). **Journal of Mathematical Economics**, Volume 46, Issue 1, 2010, pp 6-20.

26. *Multi-Item Vickrey-Dutch Auctions* (with David C. Parkes). **Games and Economic Behavior**. Volume 66, Number 1, 2009, pp 326-347.

27. *Cost Sharing in a Job Scheduling Problem* (with Bharath Rangarajan). **Social Choice and Welfare**, Volume 29, Number 3, 2007, pp 369-382.

28. *Ascending Price Vickrey Auctions for General Valuations* (with David C. Parkes). **Journal of Economic Theory**, Volume 132, Issue 1, 2007, pp 335-366.

29. *Descending Price Multi-Item Auctions* (with Rahul Garg). **Journal of Mathematical Economics**, Volume 42, Issue 2, 2006, pp 161-179.

    US Patent 7472076 titled "Method for Conducting an Auction of a Plurality of Heterogeneous Items" was awarded based on research from this paper.

Engineering Journals

1. *The characterization of affine maximizers on restricted domains with two alternatives* (with Thierry Marchant). **European Journal of Operational Research**, Forthcoming.

2. *On Optimal Mechanism Design for a Sequencing Problem* (with Jelle Duives, Birgit Heydenreich, Rudolf Muller, and Marc Uetz). **Journal of Scheduling**, Volume 18, 2015, pp 45-59.

3. *Vickrey-Dutch Procurement Auction for Multiple Items* (with Dharmaraj Veeramani). **European Journal of Operational Research**, Volume 180, 2007, pp 617-129.

4. *An Ascending Price Procurement Auction for Multiple Items with Unit Supply* (with Dharmaraj Veeramani). **IIE (Institute of Industrial Engineers) Transactions**, Volume 38, Number 2, 2006, pp 127-140.

5. *Performance Evaluation of Multi-Object Auctions* (with Sunil S. Reddy and Dharmaraj Veeramani), **Electronic Commerce Research Journal**, Volume 5, 2005, pp 293-307.

SURVEYS, BOOK CHAPTERS, CONFERENCE PROCEEDINGS ETC.

1. *Multidimensional Mechanism Design: Key Results and Research Issues.* **Current Science**, 2012.

2. *Efficient Iterative Combinatorial Auctions.* **Wiley Encyclopedia of Operations Research and Management Science**, Wiley, 2010.

3. *Cycle Monotonicity in Scheduling Models* (with Manipushpak Mitra). In B. Basu, B. K. Chakrabarti, S. R. Chakravarty and K. Gangopadhyay (Edited), **Econophysics and Economics of Games, Social Choices and Quantitative Techniques**, Pages-10-16, New Economic Window Series, Springer Verlag, Italia, Milan, 2010.

4. *Mechanism Design and Incentive Compatibility* (education briefing). **Indian Growth and Development Review**, Volume 2, Issue 2, 2009, pp 183-187.

5. *An Introduction to Mechanism Design Theory* (a brief survey on the major works of Maskin and Myerson), **Indian Economic Journal**, Volume 56, Number 2, 2008, pp 137-165.

6. *Optimal Mechanisms for Scheduling* (with Birgit Heydenreich, Rudolf Müller, and Marc Uetz), In the Proceedings of the **Workshop for Internet Economics (WINE), Lecture Notes in Computer Science 5385**, Editors: C. Papadimitriou and S. Zhang, Springer, pp 362-372, 2008.

7. *Cost Sharing in a Job Scheduling Problem Using the Shapley Value* (with Bharath Rangarajan), In the Proceedings of the 6th **ACM Conference on Electronic Commerce (EC' 05)**, ACM, pp 232-239, 2005.

8. *Simple Primal-Dual Auctions are not Possible*, In the Proceedings of the 5th **ACM Conference on Electronic Commerce (EC' 04)**, ACM, pp 250-251, 2004.

Teaching and Student Supervision

I have taught the following courses at Indian Statistical Institute.

- "Game Theory" - Every Fall semester since 2015.

- "Mathematical Programming with Applications to Economics" - Every Spring semester 2007-2014 (except Spring 2012).

- "Advanced Game Theory" (renamed "Theory of Mechanism Design" in Fall 2014) - Every Fall semester since 2007.

- Game Theory 2: Auction theory (Spring 2021).

- "Microeconomics" - Occasionally.

- "A Reading Course on Multidimensional Mechanism Design" - Fall 2008.

- I also supervise (along with Arunava Sen) a "Theory Reading Group" - every semester (since Spring 2009).

Students:

- Doctoral student supervision at ISI, Delhi:

  - Abdul Quadir (2008 - 2015) - Primary advisor.
    First placement: Post-doc at Osaka University, Japan.

  - Anushree Saha (since 2013) - Primary advisor.

  - K. Paramahamsa (2014 - 2021) - Primary advisor.

  - Komal Malik (2015 - 2022) - Primary advisor.
    First placement: Post-doc at Hebrew University, Jerusalem, Israel.

  - Harshika Dalakoti (2016 - 2024) - Primary advisor.
    First placement: Assistant Professor, Azim Premji University, Bangalore.

- Bhavook Bhardwaj (2017 - 2024) - Primary advisor.
  First placement: Post-doc at Università Ca' Foscari Venezia.

- Ojasvi Khare (since 2019) - primary advisor.

- Adarsh Nayal (since 2020) - primary advisor.

- Varun Bansal (since 2023) - primary advisor.

- I occasionally supervise Masters students for doing small theory projects.

- Undergrad thesis supervision (one of the primary advisors):

  - Raghav Malhotra (IISc Bangalore);

  - Deepna Murgai (IIT Delhi - joint with Arunava Sen);

- Masters thesis supervision:

  - 2022-2023: Ishan Azad (ISI Delhi), Saurabh Joshi (ISI Delhi), Sanyam Agarwal (ISI Delhi)

  - 2020-2021: Anirudh Khakolia (ISI Delhi), Manoj Bansal (ISI Delhi), Vikram Vasu (ISI Delhi).

  - 2019-2020: Aroon Narayanan (ISI Delhi).

  - 2018-2019: Shalabh Tiwari (ISI Delhi).

  - 2017-2018: Sulagna Dasgupta (ISI Delhi); Mandeep Bindra (ISI Delhi).

  - 2016-2017: Rajarshi Dey (ISI Delhi).

  - 2015-2016: Abhishek Gaurav (ISI Delhi); Kritika Mittal (ISI Delhi); Palash Raj (ISI Delhi).

  - 2014-2015: Akshay Mudgal (ISI Delhi); Sanket Patil (ISI Delhi); Srinivas K. Arigapudi (ISI Delhi);

  - 2013-2014: Debdatta Sinha Roy (IISER Chandigarh);

  I also supervise semester-long projects of undergrads (occasionally).

Awards and Professional Activities

- Social Choice and Welfare Prize, 2018.

- Mahalanobis Memorial Medal, 2016.

- Elected Council Member, Society for Social Choice and Welfare: (2016-2021).

- Elected Council Member, Game Theory Society: (2021-2027).

- Associate Editor: Games and Economic Behavior (Advisory editor since 2019), Social Choice and Welfare (since 2016), Mathematical Social Science (2014-2020).

- Reviewer for numerous economics, operations research journals and computer science conferences.

- Coorganized a "Workshop on Economic Design" in Delhi, January 2025.

- Coorganized a "Workshop on Economic Design" in honor of Arunava Sen in Delhi, December 2019.

- Coorganized (with Arunava Sen) a workshop in honor of Bhaskar Dutta in Delhi, December 2015.

- Coorganized (with Abhinash Borah) the Delhi Economic Theory Workshop 2016-2020.

- In organizing committee of the 11th biannual meeting of the Society of Social Choice and Welfare to be held in New Delhi, India in August 2012.

- Senior program committee member of 19th ACM Conference on Electronic Commerce (EC'18), 2018.

- In program committee of 8th, 12th, 21st ACM Conference on Electronic Commerce (EC'07, EC'11, EC'20, EC'22, EC'23, EC'24).

- Co-organizer (with Vincent Conitzer, Robert Kleinberg, and Rudolf Muller) of a workshop on "Recent Advances in Implementation Theory" at the 12th ACM Conference on Electronic Commerce (EC'11), 2011.

- Head, Economics and Planning Unit, Indian Statistical Institute, New Delhi (2020-2023); Associate Dean, Indian Statistical Institute, New Delhi (2012-2016); Head of Placement Cell, Indian Statistical Institute, New Delhi (2007-2017); Warden, ISI Delhi (2023-)