

April, 2022

Curriculum Vita

Arunava Sen

Personal Data

Date of Birth, January 3, 1959.

Education

Ph.D (Economics), Princeton University, 1987 (Thesis Advisor: Hugo Sonnenschein).

M.Phil (Economics), Oxford University, 1982.

M.A (Economics), Delhi School of Economics, University of Delhi (1980).

B.A (Economics), St Stephen's College, University of Delhi (1978).

Positions Held

Professor, Indian Statistical Institute, Delhi Centre, June 1995 - present

Associate Professor, Indian Statistical Institute, Delhi Centre, June 1991 - June 1995

Lecturer, Indian Statistical Institute, Delhi Centre, December 1988 - June 1991

Visiting Scientist, Indian Statistical Institute, Delhi Centre, August 1987 - December 1988

Research Interests

Game Theory, Social Choice Theory, Mechanism Design, Voting and Auctions

Publications

Journal Articles

“Probabilistic fixed ballot rules and hybrid domains”, (with Shurojit Chatterji, Souvik Roy, Soumyarup Sadhukhan and Huaxia Zeng), *arXiv:2105.10677*, forthcoming in *Journal of Mathematical Economics*.

“Mechanism design by observant and informed planners”, (with Shurojit Chatterji), forthcoming in *Review of Economic Design, (Special issue in honour of Semih Koray)*.

“Local global equivalence for unanimous social choice functions” (with Ujjwal Kumar, Souvik Roy, Sonal Yadav and Huaxia Zeng), *Games and Economic Behavior*, Vol. 130, 2021, 299-308.

“Robust Incentive Compatibility of Voting Rules with Positively Correlated Beliefs” (with Dipjyoti Majumdar), *Social Choice and Welfare*, Vol 57(1), 2021, 63-95.

“Local Global Equivalence in Voting Models:A Characterization and Applications” (with Ujjwal Kumar, Souvik Roy, Sonal Yadav and Huaxia Zeng), *Theoretical Economics*, Vol 16(4), 2021, 1195-1220.

“The Marriage Problem with Interdependent Preferences” (with Mohsen Pourpouneh and Rasoul Ramezani), *International Game Theory Review*, Vol 22, 2020.

“Continuity and Incentive Compatibility in Cardinal Voting Mechanisms” (with Lars Ehlers, Dipjyoti Majumdar, and Debasis Mishra), *Journal of Mathematical Economics*, Vol 88, 2020, 31-41.

“Matching with Partners and Projects” (with A. Nicolò and S. Yadav), *Journal of Economic Theory*, Vol 184, 2019.

“Implementation in Undominated Strategies by Bounded Mechanisms: The Pareto Correspondence and a Generalization” (with N. Muto, E. Ramaekers, S. Mukherjee), *Journal of Economic Theory*, Vol. 180, 2019, 229-243.

“Conditional Expected Utility Criteria for Decision Making under Ignorance or Objective Ambiguity” (with Nicolas Gravel and Thierry Marchant), *Journal of Mathematical Economics* Vol 78, 2018, 79-95.

“The Decomposition of Random Strategy-proof Social Choice Functions on Dichotomous Domains” (with Abhishek Gaurav and Jèrèmy Picot), *Mathematical Social Sciences*, (Special issue in honour of Hervé Moulin), Vol 90, 2017, 28-34.

“Pairwise Partition Graphs and Strategy-proof Social Choice Functions in the Exogenous Indifference Class Models” (with Anup Pramanik), *Social Choice and Welfare*, Vol 47, 2016, 1-24.

“A Characterization of Single-Peaked Preferences via Random Social Choice Functions” (with Shurojit Chatterji and Huaxia Zeng), *Theoretical Economics*, Vol 11, 2016, 711-733.

“Affine Maximizers with Selfish Valuations” (with Swaprava Nath), *ACM Transactions in Economics and Computing*, 2015, 3(4), 26:1-19.

“A Hurwicz-Type Result in a Model with Public Good Production” (with Mridu Prabal Goswami and Sonal Yadav), *Social Choice and Welfare*, Vol 45, 2015, 867-887.

“On Cost Sharing in the Provision of an Excludable Binary Public Good” (with Jordi Massó, Antonio Nicolò, Tridib Sharma and Levent Ulku), *Journal of Economic Theory*, Vol 155, 2015, 30-49.

“Incentive-Compatible Voting Rules with Positively Correlated Beliefs” (with Mohit Bhargava and Dipjyoti Majumdar), *Theoretical Economics*, Vol 10, 2015, 867-885.

“Automated Reasoning in Social Choice Theory: Some Remarks”, (with Siddharth Chatterjee), *Mathematics in Computer Science*, 2014, 8:5-10.

“Random Dictatorship Domains”, (with Shurojit Chatterji and Huaxia Zeng), *Games and Economic Behavior*, Vol 86, 2014, 212-236.

“Probabilistic Strategy-Proof Rules over Single-Peaked Domains”, (with Hans Peters, Souvik Roy and Ton Storcken), *Journal of Mathematical Economics*, Vol 52, 2014, 123-127.

“The Shapley Value as the Maximizer of Expected Nash Welfare”, (with Anirban Kar), *International Journal of Game Theory*, Vol 43, 2014, 619-627.

“Strategy-Proofness and Pareto-Efficiency in Quasi-Linear Exchange Economies”, (with Mridu Prabal Goswami and Manipushpak Mitra), *Theoretical Economics*, Vol 9, 2014, 361-381.

“On Domains that Admit Well-Behaved Strategy-Proof Social Choice Functions”, (with Shurojit Chatterji and Remzi Sanver), *Journal of Economic Theory*, Vol 148, 2013, 1050-1073.

“Ranking Completely Uncertain Decisions by the Uniform Expected Utility Criterion”, (with Nicolas Gravel and Thierry Marchand), *Journal of Mathematical Psychology*, Vol 5, 2012, 297-315.

“The Structure of Strategy-Proof Random Social Choice Functions over Product Domains and Separable Preferences”, (with Shurojit Chatterji and Souvik Roy), *Journal of Mathematical Economics*, Vol 48, 2012, 353-366.

“Roberts’ Theorem with Neutrality: A Social Welfare Ordering Approach”, (with Debasis Mishra), *Games and Economic Behavior*, Vol 75, 2012, 283-298.

“Nash Implementation with Partially Honest Individuals”, (with Bhaskar Dutta), *Games and Economic Behavior*, Vol 74, 2012, 154-169.

“An Extreme Point Characterization of Random Strategy-proof Social Choice Functions: The Two Alternatives Case” (with Jèrèmy Picot), *Economics Letters*, Vol 115, 2012, 49-52.

“The Gibbard Random Dictatorship Theorem: A Generalization and a New Proof”, *The Journal of the Spanish Economic Association SERIEs*, Special Issue in Honor of Salvador Barberà, (Matthew Jackson and Hugo Sonnenschein (eds)), Vol 2, 2011, 515-527.

“Tops-Only Domains” (with Shurojit Chatterji), *Economic Theory*, Vol 46, 2011, 255-282.

“Efficient Allocation of Heterogeneous Commodities with Balanced Transfers” (with Manipushpak Mitra), *Social Choice and Welfare*, Vol 35, 2010, 29-48.

“Strategy-Proof Cardinal Schemes” (with Bhaskar Dutta and Hans Peters), *Social Choice and Welfare*, Vol 28 (1), January 2007, 163-179.

“Weak Monotonicity Characterizes Deterministic Dominant Strategy Implementation”, (with Sushil Bikhchandani, Shurojit Chatterji, Ron Lavi, Ahuva Mu’alem and Noam Nissan), *Econometrica*, Vol 74(4), July 2006, pp 1109-1133.

“Top Pair and Top Triple Monotonicity”, (with Dipjyoti Majumdar), *Social Choice and Welfare*, Vol 27(1), August 2006, pp 175-189.

“Ordinally Bayesian Incentive-Compatible Voting Rules”, (with Dipjyoti Majumdar), *Econometrica*, Vol 72(2), March 2004, pp 523-540.

“Dictatorial Domains”, (with Navin Aswal and Shurojit Chatterji), *Economic Theory*, Volume 22(1), 2003, pp 45-62.

“Strategy-proof Probabilistic Mechanisms in Economies with Pure Public Goods”, (with Bhaskar Dutta and Hans Peters), *Journal of Economic Theory*, Vol 106, October 2002, 392-416.

“Strategy-proof Set Valued Social Choice Functions”, (with Salvador Barbera and Bhaskar Dutta), *Journal of Economic Theory*, Vol 101(2), December 2001, 374-394.

“Another Direct Proof of the Gibbard-Satterthwaite Theorem”, *Economics Letters*, Vol 70, 2001, 381-385.

“Separable Preferences, Strategyproofness and Decomposability”, (with Michel LeBreton, *Econometrica*, Vol 67, 1999, 605-628.

“Extensive Form Implementation in Incomplete Information Environments”, (with James Bergin), *Journal of Economic Theory*, Vol 80, 1998, 222-256.

“Implementation in Generic Environments” (with James Bergin), *Social Choice and Welfare*, Vol 13, 1996, 467-478.

“Ranking Opportunity Sets and Arrow Impossibility Theorems: Correspondence Results”, (with Bhaskar Dutta), *Journal of Economic Theory*, Vol 71, 1996, 90-101.

“The Implementation of Social Choice Functions via Social Choice Correspondences: A General Formulation and a Limit Result”, *Social Choice and Welfare*, Vol 12, 1995, 277-292.

“Nash Implementation through Elementary Mechanisms in Economic Environments” (with Bhaskar Dutta and Rajiv Vohra), *Economic Design* (now called *Review of Economic Design*), Vol 1, 1995, 173-204.

“Understanding whether agents are Fairmen or Gamesmen”, (with M. Spiegel, J. Currie and H. Sonnenschein), *Games and Economic Behavior*, Vol 7, 1994, 104-115.

“Two-Person Bayesian Implementation”, (with Bhaskar Dutta), *Economic Design* (now called *Review of Economic Design*), Vol 1, 1994, 41-54.

“Bayesian Implementation: The Necessity of Infinite Mechanisms”, (with Bhaskar Dutta), *Journal of Economic Theory*, Vol 64, 1994, 130-141.

“Implementing Generalised Condorcet Social Choice Functions via Backward Induction”, (with Bhaskar Dutta), *Social Choice and Welfare*, Vol 10, 1993, 149-160.

“Virtual Implementation in Nash Equilibrium”, (with Dilip Abreu), *Econometrica*, Vol 59, No 4, 1991, 997-1021.

“A Necessary and Sufficient Condition for Two-Person Nash Implementation”, (with Bhaskar Dutta), *Review of Economic Studies*, Vol 58, 1991, 121-128.

“Implementation under Strong Equilibrium: A Complete Characterisation”, (with Bhaskar Dutta), *Journal of Mathematical Economics*, Vol 20, 1991, 49-67.

“Implementation in Subgame Perfect Equilibrium: A Necessary and Almost Sufficient Condition”, (with Dilip Abreu), *Journal of Economic Theory*, Vol 50, 1990, 285-299.

Articles in Books

“Formation of Committees through Random Voting Rules”, (with Souvik Roy and Somyarup Sadhukhan), (2018), forthcoming in Walter Trockel (ed), *Social Design: Essays in Honor of Leonid Hurwicz*, Springer-Verlag.

“Fair and Lovely: Some Theoretical Considerations in the Equitable Allocation of Resources”, in Ashok S. Guha (ed.) *Markets and Morals: Ethical Issues in Economics*, Volume XIV Part 3 in *History of Science, Philosophy and Culture in Indian Civilization* (General Editor: D.P. Chattopadhyay), Centre for Studies in Civilizations, 2011, pp 91-121.

“Comparing Societies with Different Numbers of Individuals: A characterization of the Average Utilitarian Criterion” (with Nicolas Gravel and Thierry Marchand) in M. Fleurbaey, M. Salles and J. A. Weymark (eds), *Social Ethics and Normative Economics: Essays in honour of Serge-Christophe Kolm*, Springer Verlag, 2011.

“The Economic Theory of Quantity Controls”, (with Debraj Ray), in K.Basu and P.Nayak (eds.), *Development Economics and Policy*, Oxford University Press, 1991.

“Implementation with Perfect Information: A Survey”, (with Bhaskar Dutta), in B.Dutta et al (eds.), *Theoretical Issues in Development Economics*, Oxford University Press 1992.

“Price and Quantity Controls: A Survey of Major Issues”, (with Debraj Ray) in B. Dutta (ed.), *Welfare Economics*, Oxford University Press, 1993.

Ph.d Students (Degree Awarded)

Manipushpak Mitra, Indian Statistical Institute, 2000. Current Position: Professor, Economic Research Unit, Indian Statistical Institute, Kolkata, India.

Dipjyoti Majumdar, Indian Statistical Institute, 2003. Current Position: Associate Professor, Concordia University, Canada.

Saptarshi Mukherjee, Indian Statistical Institute, 2011. Current Position: Associate Professor, Department of Economics, Indian Institute of Technology, Delhi, India.

Mridu Prabal Goswami, Indian Statistical Institute, 2012. Current Position: Assistant Professor, Indira Statistical Institute, Tezpur, India.

Anup Pramanik, Indian Statistical Institute, 2014. Current Position: Assistant Professor, Shiv Nadar University, Delhi.

Mihir Bhattacharya, Indian Statistical Institute, 2015. Current Position: Assistant Professor, Ashoka University, Sonapat, India.

TCA Madhav Raghavan, Indian Statistical Institute, 2015. Current Position: Post-doctoral Fellow, University of Lausanne, Switzerland.

Soumendu Sarkar, Indian Statistical Institute, 2015. Current Position: Assistant Professor, Delhi School of Economics, Delhi University, Delhi.

Sonal Yadav, Indian Statistical Institute, 2015. Current Position: Post-doctoral Fellow, Umea University, Umea, Sweden.

Sarvesh Bandhu, Indian Statistical Institute, 2020. Current Position: Assistant Professor, Indian Institute of Management, Bangalore.

Aditya Vikram, Indian Statistical Institute, 2022. Current Position: Assistant Professor, Indian Institute of Technology, Kanpur.

Supervision of Master's Theses and Projects

Deep Shikha Singh, MSQE, Indian Statistical Institute, 2021.

Prajwal Gupta, MSQE, Indian Statistical Institute, 2021.

Aditya Kiran, MSQE, Indian Statistical Institute, 2021.

Ojas Dhiman, MSQE, Indian Statistical Institute, 2020.

Sai Charan Reddy, MSQE, Indian Statistical Institute, 2019.

Vasundhara Mallick, MSQE, Indian Statistical Institute, 2018.

Sanjay Moorjani, MSQE, Indian Statistical Institute, 2017.

Sumit Goel, MSQE, Indian Statistical Institute, 2017.

Sneha Agrawal, MSQE, Indian Statistical Institute, 2014.

Prerna Rakheja, Indian Statistical Institute, 2014.

Rohit Patel, M.Stat, Indian Statistical Institute, 2010.

Godbole Prasad Vaman, M.Stat, Indian Statistical Institute, 2010.

Mujtaba Hasan, Mathematics and Computer Applications, Indian Institute of Technology, Delhi, 2010.

Nupur Mangla, Mathematics and Computer Applications, Indian Institute of Technology, Delhi, 2008.

Aneesh Gupta, Mathematics and Computer Applications, Indian Institute of Technology, Delhi, 2008.

Deepna Murgai, Mathematics and Computer Applications, Indian Institute of Technology, Delhi, 2007.

Mallesh Pai, Computer Science, Indian Institute of Technology, Delhi, 2004.

Rahul Deb, Computer Science, Indian Institute of Technology, Delhi, 2004.

Professional Editorial Activities

Advisory Editor, *Journal of Mathematical Economics*.

Associate Editor, *Economic Theory*.

Associate Editor, *Social Choice and Welfare*.

Associate Editor, *Review of Economic Design*.

Associate Editor, *Mathematical Social Sciences*.

Professional Activities

President, Social Choice and Welfare Society, 2020-2022.

Member of the Council of The Game Theory, Society, 2017-.

Member, Council of the Econometric Society, 2006-2016.

Chair, South and South-East Asia, Regional Standing Committee of the Econometric Society, 2004-2014.

Member, Asia Regional Standing Committee of the Econometric Society, 2014-2016.

Member of the Council of the Social Choice and Welfare Society, 2014-.

Member, Advisory Board, Society of Economic Design.

Member of the Program Committee of various major international conferences such as the World Congress of the Game Theory Society, Chicago 2008, South Asian Meeting of the Econometric Society, Chennai 2006, Far Eastern Meeting of the Econometric Society Singapore, 2008, Asian Meeting of the Econometric Society, Seoul 2011.

Awards, Honours and Special Lectures

Condorcet Lecture, Eleventh Meeting of the Social Choice and Welfare Society, Seoul, 2018.

TWAS - Siwei Cheng Prize, 2017.

Economic Theory Fellow, 2016.

Infosys Prize (Social Sciences), 2012.

Fellow of the Econometric Society, 2003.

Mahalanobis Memorial Medal of the Indian Econometric Society, 2000.

Annual Koc University Prize 1995 for the best paper in *Economic Design* (now called *Review of Economic Design*). Title of the paper “Nash Implementation through Elementary Mechanisms in Economic Environments” written jointly with Bhaskar Dutta and Rajiv Vohra.

Murat Sertel Lecture, SED Conference on Economic Design, Maastricht, June 2009.

Inlaks Scholarship, 1980-82.