

# ADITYA VIKRAM

Room 503H-E, Diamond Jubilee Academic Complex  
Department of Economic Sciences  
Indian Institute of Technology Kanpur  
Kanpur, U.P. - 208016

Phone: +91-9599015189

Email: [vikrama@iitk.ac.in](mailto:vikrama@iitk.ac.in)

Website: <https://sites.google.com/site/88avikram/Home>

---

## EDUCATION

Ph.D. in Quantitative Economics, Indian Statistical Institute, Delhi, 2022

*Thesis:* Essays in mechanism design

*Advisor:* Prof. Arunava Sen

M.A. in Economics, Delhi School of Economics, University of Delhi, 2014

*Aggregate score:* 69.0%

M.B.A., Faculty of Management Studies, University of Delhi, 2012

*Aggregate score:* 66.8%

B.Tech. in Electrical Engineering (Power), IIT Delhi, 2009

*Aggregate CGPA:* 7.01/10

## ACADEMIC EMPLOYMENT

Assistant Professor, Department of Economic Sciences, IIT Kanpur, since May 2022

Teaching Fellow, Department of Economics, Ashoka University, Aug 2021-May 2022

## FIELDS OF SPECIALIZATION

Microeconomic Theory, Mechanism Design, Auction Theory

## PUBLISHED PAPERS

“A top-only mechanism with reserve price for single-good allocation problem”, *Economics Letters*, Vol 217, 2022 (DOI - [10.1016/j.econlet.2022.110646](https://doi.org/10.1016/j.econlet.2022.110646))

## WORKING PAPERS

“Stability and double auction design”

*Abstract:* We investigate the stability of internet platform trading mechanisms using the notion of ex-ante incentive compatible core defined by Forges, Mertens and Vohra (2002) in the context of an exchange economy. A mechanism can be blocked by a single buyer and seller pair if they can find an interim incentive-compatible trading mechanism that gives them higher ex-ante expected utilities. Standard double auction mechanisms like the trade reduction mechanism and the McAfee double auction mechanism are not ex-ante stable. We show that the revenue-maximizing mechanism of the platform is also not ex-ante stable. We characterize interim incentive-compatible, interim individually rational symmetric revenue-maximizing mechanisms that are ex-ante stable using methods in Myerson and Satterthwaite (1983).

“Budget-balanced mechanisms for single-good allocation problems with interdependent values”

*Abstract:* We study a model in which a single object is to be allocated among a set of agents whose valuations are interdependent. We define signal-ranking mechanisms and show that if the s-ranking allocation rule satisfies a combinatorial condition and the valuation functions are additively separable, there exist budget-balanced and ex-post incentive compatible s-ranking mechanisms. A variant of signal-ranking mechanism is the valuation-ranking mechanism. If the v-ranking allocation rule satisfies the same combinatorial condition and the valuation functions are additively separable and satisfy single-crossing condition, there exist budget-balanced and ex-post incentive compatible v-ranking mechanisms. We also describe a mechanism that allocates the object only to the agents with topmost signal called the probability-burning mechanism. For a restricted setting, we show that the mechanism is welfare-maximizing among all the mechanisms that allocate only to the agents with topmost signal and satisfy budget-balance, ex-post individual rationality, ex-post incentive compatibility and equal treatment at equal signals.

## TEACHING EXPERIENCE

### **Teaching Fellow (Ashoka University):**

Spring 2022	Mathematics for Economists (for UG) (with Dr. Anuradha Saha)
Monsoon 2021	Quantitative Techniques (for Masters) (with Dr. Mihir Bhattacharya)
Monsoon 2021	Financial markets and institutions (for UG) (with Prof. S K Shanthi)
Monsoon 2021	Finance and the economy (for UG) (with Dr. S K Ritadhi)

### **Teaching Assistant (ISI, Delhi):**

Fall 2015	Microeconomics (Prof. Arunava Sen and Dr. Srustidhar Chand)
Fall 2015	Mathematical Methods (Prof. Tridip Ray)

## PROFESSIONAL ACTIVITIES

### **Invited Talks:**

October 2022	Centre for Mathematical and Computational Economics, IIT Jodhpur ( <i>scheduled</i> )
--------------	---

### **Paper Presentations:**

December 2020	Econometric Society Winter School at Delhi School of Economics
August 2019	Delhi Economic Theory Workshop at Indian Statistical Institute, Delhi
June 2019	Conference on Economic Design at Corvinus University, Budapest, Hungary

## SCHOLARSHIPS & FELLOWSHIPS

2016-21	Senior Research Fellowship, Indian Statistical Institute, Delhi
2012-13	External Merit Scholarship, Delhi School of Economics, University of Delhi

## OTHER EXPERIENCE

Summer 2011	Summer Intern, SBI Capital Markets Limited
2009-10	Business Technology Analyst, Deloitte Consulting India Private Limited
Summer 2008	Summer Intern, ABB Industries Limited

## PERSONAL

Gender: Male  
Citizenship: Indian  
Languages: English, Hindi, Punjabi  
Date of Birth: 11 August, 1988

## REFERENCES

Prof. Arunava Sen  
Economics and Planning Unit  
Indian Statistical Institute, Delhi  
Email: [asen@isid.ac.in](mailto:asen@isid.ac.in)  
Phone: +91-11-4149 3945

Prof. Debasis Mishra  
Economics and Planning Unit  
Indian Statistical Institute, Delhi  
Email: [dmishra@isid.ac.in](mailto:dmishra@isid.ac.in)  
Phone: +91-11-4149 3948

Prof. Y. Narahari  
Department of Computer Science and Automation  
Indian Institute of Science Bangalore  
Email: [narahari@iisc.ac.in](mailto:narahari@iisc.ac.in)  
Phone: +91-80-2293 2773

Dr. Monisankar Bishnu  
Associate Professor, Economics and Planning Unit  
Indian Statistical Institute, Delhi  
Email: [mbishnu@isid.ac.in](mailto:mbishnu@isid.ac.in)  
Phone: +91-11-4149 3936