Mandar Keshav Datar   Curriculum Vitae

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RESEARCH INTERESTS

Optimization, Machine Learning, Game Theory, Mechanism Design, Learning in Games, Markov Decision Processes, Stochastic Modelling.

EDUCATION

Universite d'Avignon et des Pays de Vaucluse and **INRIA**, France
Ph.D., Computer Science, May 2018-June 2022
Thesis title: Resource allocation and pricing for 5G network slicing
Thesis Advisor: Eitan Altman and Corinne Touati

Veermata Jijabai Technological Institute, Mumbai, India
M.Tech., Control Systems, August 2011-July 2013
Thesis title: Motion planning for mobile robots using the reachable ret computation under constraints
Thesis Advisor: Prof. N.M.Singh

The Graduate Aptitude Test in Engineering (GATE), India
Preparatinon for GATE exam to get admission in Masters, Aug 2010- July 2011

Santa Gadge Baba Amravati University, Amravati, India
B.E., Electronics and Telecommunication, July 2006-July 2010

TEACHING AND RESEARCH EXPERIENCE

Postdoctoral Researcher, April 2023- present
Data-IA Team,
Orange Innovation, Chatillon, Paris.

Advisor: Dr.Yann Dujardin

Postdoctoral Researcher, Sept 2022- February 2023
Network Engineering and Operations (NEO) team,
INRIA Sophia Antipolis Méditerranée

Advisor: Dr. Eitan Altman

Research Assistant, May 2017- Apr 2018
Industrial Engineering and Operational Research,
Indian Institute of Technology Bombay, Mumbai.

Advisor: Prof. Manjesh Kumar Hanawal

Teaching Assistant, Jan 2015-Apr 2017
Industrial Engineering and Operational Research,
Indian Institute of Technology Bombay, Mumbai.

Assistant Professor, Aug 2013-Dec 2014
Department of Electrical Engineering,
Veermata Jijabai Technological Institute, Mumbai.

GOOGLE
SCHOLAR   My Google Scholar page is here

JOURNAL
PUBLICATIONS

1. **Mandar Datar**, Naresh Modina, Rachid El-Azouzi, Eitan Altman " Fisher Market based resource allocation for 5G network slicing" *Under preparation*

2. **Mandar Datar**, Eitan Altman, Hélène Le Cadre. "Strategic Resource Pricing and Allocation in a 5G Network Slicing Stackelberg Game." *IEEE Transactions on Network and Service Management 2022*

3. Eitan Altman, **Mandar Datar**, Francesco de Pellegrini, Samir Perlaza, Daniel Sadoc Menasche,"The Mask Game with Multiple Populations", *Dynamic Games and Applications (DGAA) 12, pages 147–167 (2022)*

4. Eitan Altman, Alexandre Reiffers, Daniel S. Menasche, **Mandar Datar**, Swapnil Dhamal and Corinne Touati,"Blockchain Competition Between Miners: A Game Theoretic Perspective" *Frontiers Blockchain,volume 2,2019*

CONFERENCE
PUBLICATIONS

1. Taisant, Raphaël, **Mandar Datar**, Hélène Le Cadre, and Eitan Altman. "Balancing Efficiency and Privacy in a Decision-Dependent Network Game." *Accepted in European Control Conference 2023.*

2. Naresh Modina, **Mandar Datar**, Rachid El-Azouzi, Francesco de Pellegrini."Multi Resource Allocation for Network Slices with Multi-Level fairness", *ICC 2022 - IEEE International Conference on Communications, 2022, pp. 4872-4877*

3. **Mandar Datar**, Eitan Altman. "Strategic Resource Management in 5G Network Slicing", *In 2021 33th International Teletraffic Congress (ITC-33), pp. 1-9. IEEE, 2021.*

4. **Mandar Datar**, E. Altman, Ghilas Ferrat "Routing into parallel collision channels",*ACM SIGMETRICS Performance Evaluation Review,September 2020,volume 48,2,15-17*

5. **Mandar Datar**, Eitan Altman, Francesco De Pellegrini, Rachid El Azouzi, Corinne Touati "A Mechanism for Price Differentiation and Slicing in Wireless Networks",*2020 18th International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOPT), Volos, Greece, 2020, pp. 1-8.*

6. Francesco De Pellegrini, Francescomaria Faticanti, **Mandar Datar**, Eitan Altman, Domenico Siracusa "Optimal Blind and Adaptive Fog Orchestration under Local Processor Sharing",*2020 18th International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOPT), Volos, Greece, 2020, pp. 1-8.*

7. Eitan Altman, **Mandar Datar**, Gerard Burnside and Corinne Touati "Normalized Equilibrium in Tullock Rent Seeking", *Game Theory for Networks. GameNets 2019, Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol 277. Springer, Cham*

8. Eitan Altman, Alexandre Reiffers, Daniel S. Menasche, **Mandar Datar**, Swapnil Dhamal and Corinne Touati, "Mining competition in a multicryptocurrency ecosystem at the network edge: a congestion game approach" *Symposium on Cryptocurrency Analysis, 36th International Symposium on Computer Performance, Modeling, Measurements and Evaluation 2018*

9. Vivek Pandit, **Mandar Datar**, Manjesh Hanawal and Sharayu Moharir, "Pricing in Ride Sharing Platforms: Static vs Dynamic Strategies" *2019 11th International Conference on Communication Systems & Networks (COMSNETS), Bengaluru, India, 2019, pp. 208-215*

10. **Mandar Datar**, Vishwanath Ketkar, Manas Mejari, Ankit Gupta, Navdeep Singh, Faruk Kazi "Motion Planning for the Three Wheel Mobile Robot using the Reachable Set Computation under Constraints" *hird International Conference on Advances in Control and Optimization of Dynamical Systems March 13-15, 2014. Kanpur, India. IFAC Proceedings Volumes, Volume 47, Issue 1, 2014, Pages 787-793*

11. Manas Mejari , Ankit Gupta, Vishwanath Ketkar, **Mandar Datar**, Navdeep Singh, Faruk Kazi "Stabilization of 2-D Spider Crane with Non-Convex State Constraints using MPC" *Third International Conference on Advances in Control and Optimization of Dynamical Systems March 13-15, 2014. Kanpur, India. IFAC Proceedings Volumes, Volume 47, Issue 1, 2014, Pages 593-598*

12. Manas Mejari , Ankit Gupta, Vishwanath Ketkar, **Mandar Datar**, N.M Singh "Nonlinear model predictive control of PVTOL aircraft under state and input constraints" *Advances in Robotics' (AIR-2013) organized by Defence Research Development Organization (DRDO, Pune, India) and the Robotics Society of India*

WORKSHOPS

- Advanced Instructional School on "Optimisation", National Centre for Mathematics
- Winter School 2012, IIT Bombay
- 6.01x:Embedded Systems-Shape The World, The University of Texas System, an online learning initiative of The University of Texas System through edX.
- Introduction to VLSI and Embedded System Design, IETE, Amravati In Association with Ambekar Associates, Aurangabad.

COMPUTER
PROGRAMMING
- C

- C++
- MATLAB
- Python
- Scilab
- Latex

LANGUAGE
SKILLS

- English: fluent in reading, writing, speaking
- French: very basic in reading, writing, speaking
- Marathi: Native Language
- Hindi: Native Language

PERSONAL
DETAILS

Nationality: Indian
Date of Birth: 15 Aug 1988
Correspondence Address: Appt. No. 0267, 2 Impasse De L'epi Avignon, 84000

REFERENCES

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Network Engineering and Operations
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