Curriculum Vitae

Suraj Singh Khurana
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About me

Currently I am an assistant professor in Department of Mathematics, SRM University AP. Before this I was a post-doctoral fellow at Indian Institute of Technology Kanpur, Harish-Chandra Research Institute and IIIT Delhi. I did my PhD under the supervision of Dr. Tapas Chatterjee at Indian Institute of Technology Ropar. My research area of interest is in special values of L-functions, L-functions in Selberg Class, application of Euler constant to Divisor problems, and Euler-Kronecker constants.

Education/Work

INSPIRE Fellow, Integrated BS-MS (Mathematical Sciences), 2008-2013
Indian Institute of Science Education and Research Mohali.

Junior Research Fellow (CSIR), 2015-2017
Department of Mathematics,
Indian Institute of Techonology Ropar.

Senior Research Fellow (CSIR), 2017-2019
Department of Mathematics,
Indian Institute of Techonology Ropar.

Director Fellow (Research Associate), 2019-April 2020
Department of Mathematics,
Indian Institute of Techonology Ropar.

Post-doctoral Fellow, 2020(September-December)
Department of Mathematics,
Indraprastha Institute of Information Technology, Delhi.

Post-doctoral Fellow, 2020(December)-2021(November)
Harish-Chandra Research Institute

Post-doctoral Fellow, 2021(December)-2023(July)
Indian Institute of Technology Kanpur

Assistant Professor, 2023(August)-Present
Department of Mathematics, SRM University AP

Research Work/Publications

1. S. S. Khurana *A closed-form expression for the Euler–Kronecker constant of a quadratic field* The Ramanujan Journal **63**,(2024) 507-526.
`https://doi.org/10.1007/s11139-023-00772-8`

2. S. S. Khurana *On irrationality criteria for the Ramanujan summation of certain series* International Journal of Number Theory **19**, No. 7 (2023), 1571-1587. https://doi.org/10.1142/S179304212350077X

3. S. Chaubey, S. S. Khurana, A. I. Suriajaya, *Zeros of derivatives of L-functions in the Selberg class on* $\Re(s) < 1/2$. Proc. Amer. Math. Soc. **151**, No. 5 (2023), 1855-1866. https://doi.org/10.1090/proc/16251

4. T. Chatterjee and S. S. Khurana, *A series representation of Euler-Stieltjes constants and an identity of Ramanujan*, Rocky Mountain J. Math. **52**, No. 1 (2022), 49-64. 10.1216/rmj.2022.52.49

5. T. Chatterjee and S. S. Khurana, *Shifted Euler constants and a generalization of Euler-Stieltjes constants*, J. Number Theory, 204 (2019), 185-210. https://doi.org/10.1016/j.jnt.2019.04.001

6. T. Chatterjee and S. S. Khurana, *Erdősian functions and an identity of Gauss*, Proc. Japan Acad. Ser. A Math. Sci. 95 (2019), no. 6, 58–63. https://projecteuclid.org/euclid.pja/1559268171

7. T. Chatterjee and S. S. Khurana, *A note on generalizations of Stieltjes constant*, J. Ramanujan Math. Soc. **34**, No. 4 (2019), 457-468. http://52.172.152.24/index.php/rms/article/view/191325

Conferences/ Workshops

National

- Advanced Instructional School(AIS) in *Analytic Number Theory* from June 1 to June 20, 2015 organized by National Centre for Mathematics (NCM) at KIIT University, Bhubaneshwar, India.
- Annual Research Day, November 7, Cynosure-2015 at IIT Ropar.
- Poster Presentation in Cynosure-2017 at IIT Ropar.
- Short-term Course titled "Transcendental Numbers and Special Values of Dirichlet Series" under Global Initiative of Academic Networking (GIAN) Scheme of MHRD, Govt. of India from December 16 to 21, 2017. (Course Instructor Prof. Ram Murty).
- A short course on "Introduction to Proabability number theory" by Prof. Jean-Marc Deshouillers at Institute of Mathematical Sciences, Chennai from January 14 to January 20, 2018.
- Poster Presentation in Research Conclave-2018 at IIT Ropar.
- Poster presentation in Cynosure 2018 & National Symposium on Advances in Mathematics.
- Poster Presentation in Research Conclave-2019 at IIT Ropar.
- Gave a talk titled "Some results for L-functions in Selberg Class" at second session of Young Researchers meeting of Math-Stat IITK on March 26, 2022.

International

- CIMPA-ICTP research school on *Artin L-functions, Artin's primitive roots conjecture and applications* at Nesin Mathematics Village, Sirince, Turkey from May 29^{th} - June 9^{th} 2017. (Funded by IMU, NTF, RNTA)
- WAMS research school on *Topics in Analytic and Transcendental Number Theory* at Institute for Advanced Studies in Basic Sciences (IASBS) Zanjan, Iran from July 1^{st} - July 13^{th} 2017. (Funded by CIMPA, NTF, IMU)

- Selected to give talk for the international conference titled "Number Theory: Arithmetic, Diophantine and Transcendence" celebrating 130th Birth Anniversary of Srinivasa Ramanujan at IIT Ropar from December 22 to 25, 2017.
- Emil Artin International WAMS research school on *The mathematics of Artin's conjectures* at Yerevan State University, Armenia from 21 May to 25th May, 2018. (Funded by CIMPA, YSU)
- Second Symposium on Analytic Number Theory, Cetraro, Italy 8-12 July 2019 (Funded by Politecnico Di Torino and Foundation Composito Mathematica).

Teaching Experience

Tutor for the following courses at IIT Ropar:

- MAL415 Algebra, 2018(Aug-Nov)
- MA102 Linear Algebra, Integral Transforms and Special Functions,2018(Jan-May)
- MAL412 Linear Algebra,2017(Aug-Nov).
- MAL415 Algebra, 2016(Aug-Nov).
- MAL213 Introduction to Probability Theory and Stochastic Processes, 2016(Jan-May).
- MAL112 Advanced Calculus, 2015(Aug-Nov).

Tutor for the following courses at IIT Kanpur:

- MTH101A-Advanced Calculus, (Dec 2021-Mar 2022)
- MTH102A-Linear Algebra & Ordinary Differential Equation, 2022(April-July)

Technology Skills

Languages and Tools: Python, C, HTML, LaTeX, SageMath,

Software: Microsoft Office,VS code, Git, Github, Jupyter Notebook

Online Certifications:

1. Coursera: Machine Learning - Credential ID (THYMEYKC98VN)
2. Coursera: Getting Started with Git and GitHub - Credential ID(DXTH7LNNZDZG)
3. Coursera: Number Theory and Cryptography - Credential ID (83P2JT5MZD45)

Academic Achievements

- Qualified All India Joint Entrance Examination 2008 [IIT-JEE] (98.5 % Percentile).
- Received INSPIRE scholarship by Department of Science and Technology, Government of India for Integrated 5 year BS-MS . [2008-2013].
- IELTS Exam (7.0), 2014 . [Listening-7.5 Reading – 7.0 Writing – 6.5 Speaking – 7.0].
- Eligible for INSPIRE PhD fellowship by Department of Science and Technology, Government of India.
- Qualified UGC-CSIR National Eligibility Test (Research Fellowship for PhD), 2014 [All India Rank - 77].
- Qualified GATE (Graduate Aptitude Test in Engineering) , 2014 [All India Rank - 80] (97.92 % Percentile).
- Qualified for Eligibility for Lectureship(LS)(NET) , 2015 [All India Rank -29].
- Awarded NBHM post doctoral fellowship, 2020

- Appreciation by the Director of IIT Kanpur for being tutor of the course on advanced calculus(MTH101A) based on the feedback of the students.

This CV was last updated on May 20, 2024 at 16:37:17.