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Brundaban Sahu

Personal:

- Place of Birth
- Jharanipali, Balangir
- Nationality : Indian

Research Interests:

- Number Theory, Modular Forms, Jacobi Forms,
- Representations of Numbers by Quadratic Forms

:

Education:

• Ph.D. in Mathematics, 2008

Harish-Chandra Research Institute/ degree awarded by University of Allahabad Thesis Title: *Some Problems in Number Theory,* Advisor : Professor B. Ramakrishnan.

- M. Sc. in Mathematics (83.8 %), Sambalpur University, 2001.
- B. Sc. in Mathematics (75.5%), G. M. College, Sambalpur, 1999.
- Higher Secondary (66.7 %), G. M. College, Sambalpur, 1996.
- Secondary (77.2%), I. G. High School, Jharanipali, Balangir, 1994.

Employment:

- Professor (July 1, 2022–), NISER, Bhubaneswar
- Associate Professor (July 1, 2017-June 30, 2022), NISER, Bhubaneswar
- Reader-F (July 1, 2014-June 30, 2017), NISER, Bhubaneswar
- Assistant Professor (August 2, 2010-June 30, 2014), NISER, Bhubaneswar
- Science Foundation of Ireland (SFI) Postdoctoral Fellow (November 2008- October 2010), University College Dublin Postdoctoral Advisor: Professor Dr. Robert Osburn
- Junior/ Senior Research Fellow (2002-2008), HRI, Allahabad.
- NBHM Junior Research Fellow (2001), ISI, Bangalore

Publications/ Preprints:

- (1) B. Ramakrishnan, Brundaban Sahu and Anup Kumar Singh, Evaluation of triple convolution sums
- (2) On the number of representations of certain quadratic forms of sixteen variables II (with B. Ramakrishnan and Anup Kumar Singh)
- (3) *Representation of a natural number as sum of odd number of squares and convolution sums of divisor functions* (with Shivansh Pandey)
- (4) A simple extension of Ramanujan-Serre derivative map and some applications (with B. Ramakrishnan and Anup Kumar Singh) Ramanujan Journal 61 (2023), 4, 1379-1410
- (5) Representations of squares by certain diagonal quadratic forms in odd number of variables (with B. Ramakrishnan and Anup Kumar Singh) To appear in the Rocky Mountain Journal of Mathematics
- (6) Nonvanishing of kernel functions for Jacobi forms and Poincaré series (with Shivansh Pandey) Journal of Mathematical Analysis and Applications, 515 (2022), no. 2, paper number. 126455
- (7) On the number of representations of a natural number by certain quaternary quadratic forms, (with B. Ramakrishnan and Anup Kumar Singh), Modular forms and related topics in number theory, 173–198, Springer Proc. Math. Stat., 340, Springer, Singapore, 2020
- (8) Rankin-Cohen type operators for Hilbert-Jacobi forms (with Moni Kumari), Modular forms and related topics in number theory, 143–156, Springer Proc. Math. Stat., 340, Springer, Singapore, 2020
- (9) Rankin-Cohen brackets on Jacobi forms of several variables and special values of certain Dirichlet series (with Abhash Kumar Jha) Int. J. Number Theory (15), 2019, no-5, 925-933
- (10) On the number of representations by certain quadratic forms in 8 variables (with B. Ramakrishnan and Anup Kumar Singh) Automorphic Forms and Related Topics, 215-224, Contemp. Math., Vol-732, American Mathematical Society, Providence, RI, 2019
- (11) Differential operators on Jacobi forms and special values of certain Dirichlet series (with Abhash Kumar Jha) Automorphic Forms and Related Topics, 91-99, Contemp. Math., Vol-732, American Mathematical Society, Providence, RI, 2019
- (12) *Rankin-Cohen brackets on Hilbert modular forms and special values of certain Dirichlet series*, Funct. Approx. Comment. Math, 58 (2018), 2, 257-268 (with Moni Kumari)
- (13) On the number of representations of certain quadratic forms and a formula for the Ramanujan Tau function, Funct. Approx. Comment. Math, 58 (2018), 2, 233-244 (with B. Ramakrishnan and Anup Kumar Singh)

- (14) On the number of representations of certain quadratic forms and a formula for the Ramanujan Tau function (with B. Ramakrishnan and Anup Kumar Singh) In: Akbary, Amir, Gun, Sanoli (eds.) Geometry, Algebra, Number Theory and Their Information Technology Applications, Springer Proceedings in Mathematics and Statistics, vol 251, pp: 383-409, 2018
- (15) On the number of representations by certain octonary quadratic forms with coefficients 1, 2, 3, 4 and 6, Int. J. Number Theory, 14 (2018), 3, 751-812 (with B. Ramakrishnan and Anup Kumar Singh)
- (16) On the representations of a positive integer by certain classes of quadratic forms in eight variables (with B. Ramakrishnan and Anup Kumar Singh) pp 641-664, In: Andrews G., Garvan F. (eds) Analytic Number Theory, Modular Forms and q-Hypergeometric Series. ALLADI60 2016. Springer Proceedings in Mathematics & Statistics, vol 221. Springer
- (17) *On the number of representations of certain quadratic forms in 20 and 24 variables,* Funct. Approx. Comment. Math. 54 (2016), 2, 151-161 (with B. Ramakrishnan)
- (18) *Rankin-Cohen brackets on Siegel modular forms and Special values of Certain Dirichlet series,* The Ramanujan Journal, 44 (2017), 1, 63-73 (with Abhash Kumar Jha)
- (19) *Rankin-Cohen brackets on Jacobi Forms and the adjoint of some linear maps,* The Ramanujan Journal, 39 (2016), 3, 533-544 (with Abhash Kumar Jha)
- (20) Evaluation of convolution sums and some remarks on cusp forms of weight 4 and level 12 Mathematical Journal of Okayama University, 59 (2017), 71-79 (with B. Ramakrishnan)
- (21) Identities for the Ramanujan Tau function and certain convolution sum identities for the divisor functions, Number Theory, RMS-Lecture Notes Series, No. 23, 2016, 63-75 (with B. Ramakrishnan)
- (22) *Supercongruences for Sporadic Sequences* Proceedings of the Edinburgh Mathematical Society (Series 2), 59 (2016), 2, 503-518 (with R. Osburn, A. Straub)
- (23) On the number of representations of an integer by certain quadratic forms in sixteen variables Int. J. Number Theory, 10 (2014), 8, 1929-1937 (with B. Ramakrishnan),
- (24) Evaluation of the convolution sums $\sum_{l+15m=n} \sigma(l)\sigma(m)$ and $\sum_{3l+5m=n} \sigma(l)\sigma(m)$ and an application, Int. J. Number Theory, 9 (2013), 3, 799- 809 (with B. Ramakrishnan).
- (25) A supercongruence for generalized Domb numbers, Funct. Approx. Comment. Math., 48 (2013), 1, 29-36 (with R. Osburn).
- (26) Supercongruences for Apéry-like numbers (with R. Osburn), Advances in Applied Mathematics, 47, (2011), no. 3, 631-638.
- (27) Congruences via Modular forms (with R. Osburn), Proc. Amer. Math. Soc., Vol 139 (2011), no. 7, 2375-2381.

- (28) Rankin-Cohen Brackets and van der Pol-Type Identities for the Ramanujan's Tau Function (with B. Ramakrishnan), arXiv:0711.3512v1.
- (29) *Rankin's method and Jacobi forms of several variables* (with B. Ramakrishnan), Journal of Australian Math. Soc., 88 (2010), no. 1, 131-143.
- (30) *Distribution of Residues Modulo p* (with S. Gun, F. Luca, P. Rath, R. Thangadurai), Acta Arith. 129 (2007), no. 4, 325-333.
- (31) *On the Fourier expansion of Half Integral weight Jacobi Forms* (with B. Ramakrishnan), Int. J. Math. Math. Sci., 2006, Art. ID 14726.
- (32) *Distribution of Quadratic non-residues which are not primitive roots* (with S. Gun, R. Thangadurai, B. Ramakrishnan), Math. Bohem., 130 (2005), no. 4, 387–396.

Research Visits:

- University College Dublin, Dublin (June 5-9, 2017)
- Harish-Chandra Research Institute, Allahabad (September 26–October 1, 2016, June 29–July 9, 2015, September 23-October 4, 2013, 2012 December 9-15, 2012, July 9-20, 2012, December 12-23, 2011)
- University College Dublin, Dublin (July 9-23, 2011)
- Institut des Hautes Études Scientifiques (IHÉS), Paris (July 15- September 15, 2009)

Research Grant(s):

- Core Research Grant (CRG/2022/000359) Funding Organisation: SERB, Department of Science and Technology Duration: 2023-2026
- MATRICS (MTR/2017/000228) Funding Agency: SERB, Department of Science and Technology Period: 2018-2021, Rs 6, 60, 000/
- Title: Modular forms and Supercongruences (SR/FTP/MS-053/2012) Funding Agency: SERB, Department of Science and Technology Period: 2014-2017, Rs 12, 24, 000/

Advising:

- Mr. Abhash Kumar Jha (Ph.D. 2016, NISER)
- Ms. Moni Kumari (Ph. D. 2018, NISER)
- Ms. Sneha Chaubey (M. Sc. Thesis, 2012, NISER)
- Mr. Ankush Goswami (M. Sc. Thesis, 2013, NISER)
- Mr. Sagar Srivastava (M. Sc. Thesis, 2016, NISER)
- Mr. Akash Jena (M. Sc. Thesis, 2017, NISER)

- Mr. Swaroop S. Hegde (M. Sc. Thesis 2020, NISER)
- Mr. Paresh Singh Arora (M. Sc. Thesis 2021, NISER)
- Mr. Archisman Bhattacharya (M. Sc. Thesis 2022, NISER)
- Mr. Shivansh Pandey (Phd student- ongoing)

Post Doctoral Fellows:

- Dr. Prem Prakash Pandey (August 2016–May 2017)
- Dr. Balesh Kumar Pandey (August 2019–December 2019)
- Dr. Anup Kumar Singh (January, 2021–April 2023)
- Dr. Gargi Mukherjee (June, 2023–May 2024)

Summer Students (Indian Academy of Sciences) Guidance:

- Arpita Jena, ISM, Dhanwad, 2013
- Sujeet Kumar, Patna College, 2013
- Sambit Mohanty, St. Stephen's College, New Delhi, 2014
- Aneesh Palsule, IISER, Bhopal, 2014
- Brahadeesh Sankaranarayanan, IISER, Bhopal, 2015
- Amitayush Thakur, BITS, Pilani, 2015
- Brahadeesh Sankaranarayanan, IISER, Bhopal, 2016
- Shivam Pandey, Ewing Christian College, Allahabad, 2018
- Anjali Naik, Guru Ghasidas Vishwavidyalaya, Bilaspur, 2018
- Anushka Agrawal, VSSUT, Burla, 2020
- Suraj Kulkarni, IMA, Bhubaneswar, 2020
- Purna Dutta, IISER, Berhampur, 2021
- Prassanna Nand Jha, Sri Venkataswara College, Delhi, 2021
- Nazrul Haque, RKMVC College, Rahara, 2022

External Thesis Reviewer:

- Usha Keshav Sangale (SRTM University, Nanded), 2016
- Pramath A V (IISc, Bengaluru) 2019
- Jagannath Bhanja (IIT, Roorkee) 2019
- N. Sudhir Singh (Manipur University, Imphal) 2019
- Sumukha S (NIT, Surathkal) 2022
- Makeshwari (CUTN, Thiruvarur) 2023

Conferences/Workshops/School Co-organised:

- Discussion Meeting on Automorphic Forms (December 21-27, 2016), NISER, Bhubaneswar
- School and Workshop on Modular Forms and Black Holes (January 5–14, 2017), NISER, Bhubaneswar
- Workshop on Number Theory (November 30–December 6, 2018), NISER, Bhubaneswar
- Advanced Foundation School (AFS- III), July 1–27, 2019, NISER, Bhubaneswar
- Lecture series on Transcendence on Commutative Algebraic Groups (December 9–15, 2019) by Professor M. Waldschmidt, NISER, Bhubaneswar

Talks in International Conferences/Workshops:

- A simple extension of Ramanujan-Serre derivative map and some applications, 32mes Journes Arithmtiques, (July 3–7, 2023), Universit/'e de Lorraine, Nancy, France
- A simple extension of Ramanujan-Serre derivative map and some applications, 5th EU-US Workshop on Automorphic forms (August 1-13, 2022) University of Sarajevo, Bosnia and Horzegovina.
- Modular forms and the number of representations of a natural number by certain quadratic forms, 2nd international webinar on Recent Development on Number Theory (October 1–4, 2021), KIIT, Bhubaneswar
- Rankin-Cohen brackets on Jacobi forms of several variables and special values of certain Dirichlet series International Conference on Number Theory and Algebra (December 22-23, 2020), IIT BHU, Varanasi
- Supercongruences of Apéry-like numbers, Workshop on Additive Combinatorics (February 24–March 06, 2020), ICTS, Bengaluru
- Rankin-Cohen brackets on modular forms and special values of certain Dirichlet series, Value Distribution of Zeta and L-functions and Related topics (March 21-27, 2019), RIKEN, Wako/Tokyo, Japan.
- Rankin-Cohen brackets on modular forms and special values of certain Dirichlet series, Conference on Number Theory (March 11-13, 2019), IISER, Trivandrum
- Rankin-Cohen brackets on Hilbert forms and special values of certain Dirichlet series, Conference on Number Theory (December 10-14, 2018), KSOM, Calicut.
- Rankin-Cohen brackets on Jacobi forms of several variables and certain Dirichlet series, Discussion meeting on Modular Forms (October 3-14, 2018), KSOM, Calicut.
- Rankin-Cohen brackets on modular forms and certain Dirichlet series, (July 11, 2018) Applied Mathematics Seminar at Mahidol University International College, Bangkok, Thailand

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- Rankin-Cohen brackets on Hilbert modular forms and special values of certain Dirichlet series, Discussion meeting on Modular Forms (February 12–24, 2018), KSOM, Calicut
- Rankin-Cohen brackets on Hilbert modular forms and special values of certain Dirichlet series, Conference on Number Theory: Arithmetic, Diophantine and Transcendence (December 22-25, 2017), IIT, Ropar
- Rankin-Cohen brackets on Jacobi forms and Siegel modular forms and certain Dirichlet series, XXXmes Journes Arithmtiques, (July 3–7, 2017), University de Caen, France
- Rankin-Cohen brackets on Jacobi forms and Siegel modular forms and certain Dirichlet series, Combinatorics and Number Theory Meet, (February 19-23, 2017), Harish-Chandra Resaerch Institute, Allahabad
- Rankin-Cohen brackets on Jacobi forms and Siegel modular forms and certain Dirichlet series, INSA Annual Meeting (December 28–30, 2016), NISER, Bhubaneswar
- On congruences on Apéry-like numbers, International Conference on Number Theory (August 17-21, 2016), Kerala School of Mathematics, Kozhikode, India
- Convolution sums of the divisor function and the number of representations of certain quadratic forms, 3rd EU-US Workshop on Automorphic forms (March 18-22, 2016) University of Sarajevo, Bosnia and Horzegovina.
- Rankin-Cohen brackets on Jacobi forms and Siegel modular forms and certain Dirichlet series, Symposium on Number Theory, Ramanujan Mathematical Society Annual Conference, Tiruchirapalli (June 17–21, 2016), India
- Rankin-Cohen brackets on Jacobi forms and Siegel modular forms and certain Dirichlet series, Workshop on Automorphic forms (February 10-16, 2016), Kerala School of Mathematics, Kozhikode, India
- Convolution sums of the divisor function and the number of representations of certain quadratic forms, 30th Annual Workshop on Automorphic Forms and Related Topics (March 7-10, 2016) Wake Forest University, Winston-Salem, USA.
- Rankin-Cohen brackets on Siegel modular forms and certain Dirichlet series, Workshop on Automorphic forms (February 10-16, 2016), Kerala School of Mathematics, Kozhikode, India
- Jacobi Cusp Forms and the adjoint of linear maps constructed with the Rankin-Cohen brackets, 29th Annual Workshop on Automorphic Forms and Related Topics (March 2-5, 2015) University of Michigan, Ann Arbor, USA.
- **Construction of Jacobi cusp forms**, International conference on Automorphic forms and applications (February 13-14, 2015), Kerala School of Mathematics, Kozhikode, India

- Supercongruences of Apéry-like numbers via modular forms, International Conference on Automorphic forms and Number Theory, August 30- September 3, 2013, KSOM, Kerala
- Quasimodular forms and Evaluation of certain convolution sums of divisor functions, Contributed talk at The Legacy of Srinivasa Ramanujan, (December 17-22, 2012), University of Delhi, India
- Differential operators on modular forms and quasimodular forms and some applications, School on Modular Forms (October 3-19, 2012), Kerala School of Mathematics, Kozhikode, India
- **Congruences of Apéry-like numbers via modular forms**, 26th Automorphic Forms Workshop (April 26-29, 2012), University of British Columbia, Vancouver, Canada
- Rankin-Cohen brackets on quasimodular forms and some applications, Summer School on Quasimodular Forms (June 20-26, 2010) Clermont-Ferrand, France.
- **Differential operators on modular forms**, Workshop on the theory of Jacobi forms and Siegel modular forms, (November 23- December 5, 2009), Chennai, India.
- **Congruences for Apéry-like numbers**, XXVI Journées Arithmétiques (July 6-10, 2009) in Saint-Étienne, France
- Rankin-Cohen Brackets and van der Pol type identities for the Ramanujan Tau function, 23rd Annual Workshop on Automorphic Forms and Related Topics (May 10-13, 2009) Bucknell University, USA.
- Hilbert Modular Forms, Workshop on Arithmetic Geometry (Sept 24-Oct 05, 2007) in Chennai Mathematical Institute, Chennai, India.
- On the Rankin-Cohen Brackets for Jacobi forms of higher degree, Jacobi Forms and Applications (May 7-11, 2007) CIRM, Luminy, France.
- On the Rankin-Cohen Brackets for Jacobi forms of higher degree, International Conference on Number Theory and Applications (Dec 27-29, 2006) in RKM Vivekananda College, Chennai.
- On the Fourier expansion of Jacobi forms of half-integral weights, International Conference on Number Theory (Dec 1-5, 2006) in HRI, Allahabad

Seminar Talks:

- On the number of representations of a natural number by certain quadratic forms, (January 4, 2020), HRI, Prayagraj
- Rankin-Cohen brackets on modular forms and certain Dirichlet series, (November 19, 2019) IIT, Guwahati
- Rankin-Cohen Brackets on Quasimodular forms and Convolutions sums of the divisor functions, (March 20, 2012), NISER, Bhubaneswar.

- **Representations of integers as sums of squares and modular forms**, (March 17, 2012), UGC aided Seminar, F. M. College, Balasore.
- Differential operators on modular forms, (December 16, 2009) NISER, Bhubaneswar.
- Rankin-Cohen Brackets and van der Pol type identities for the Ramanujan Tau function, (February 4, 2009), K-Theory, Quadratic Forms and Number Theory Seminar, UCD.
- Some problems in number theory, Thesis Seminar, University of Allahabad.
- Some prime producing polynomials and class number, (July, 2004), HRI, Allahabad
- van der Waerden's Theorem and its applications, (July, 2004), HRI, Allahabad.
- Quadratic reciprocity law, (December, 2002), HRI, Allahabad.

Conferences/Workshops Attended:

- GIAN course "Transcendental Numbers and Special values of Dircichlet Series" (December 16–21, 2017), IIT, Ropar
- Indefinite Theta functions and Applications in Physics and Geometry (June 6–9, 2017), Hamilton Mathematics Institute, Trinity College Dublin, Ireland
- Workshop on Bianchi Modularity (July 11-15, 2013), University of Luxembourg, Luxembourg
- Advanced School and Workshop on L-functions and modular forms (September 1-12, 2014), ICTP, Trieste, Italy
- Conference on Analytic Theory of Automorphic Forms (December 9-13, 2013), IMSc, Chennai, India
- International Conference on Automorphic forms and Number Theory (August 30- September 3, 2013), KSOM, Kerala
- The Legacy of Srinivasa Ramanujan, (December 17-22, 2012), University of Delhi, India
- School on Modular Forms (October 3-19, 2012), Kerala School of Mathematics, Kozhikode, India
- 26th Automorphic Forms Workshop (April 26-29, 2012), University of British Columbia, Vancouver, Canada
- International Colloquium on Automorphic Representations and L-functions (Jan 3-12, 2012), TIFR, Mumbai, India
- International meeting on Number Theory (Dec 15-20, 2011), HRI, Allahabad
- School and Conference on Modular Forms and Mock Modular Forms and their applications in Arithmetic, Geometry and Physics (Feb 28-March 18, 2011), ICTP, Italy
- Prospects in q-series and modular forms (July 14-16, 2010) UCD, Dublin, Ireland.

- Summer School on Quasimodular Forms (June 20-26, 2010) Clermont-Ferrand, France.
- Workshop on the theory of Jacobi forms and Siegel modular forms (November 23- December 5, 2009), Chennai, India
- XXVI Journées Arithmétiques (July 6-10, 2009) Saint-Étienne, France
- Activités Additives et Analytiques (June 30- July 4, 2009), Lille, France
- Mock theta functions and applications in combinatorics, algebraic geometry, and mathematical physics (May 25-29, 2009) Max Planck Institute for Mathematics, Bonn, Germany
- UCD-Nottingham Number Theory Day (May 2, 2009), University of Nottingham, UK
- 23rd Annual Workshop on Automorphic Forms and Related Topics (March 10-13, 2009), Bucknell University, USA
- International Colloquium on Cycles, Motives and Shimura Varieties (Jan 3-12, 2008), TIFR, Mumbai, India
- Workshop on Arithmetic Geometry (Sept 24-Oct 05, 2007), Chennai Mathematical Institute, Chennai, India
- Jacobi Forms and Applications (May 7-11, 2007), CIRM, Luminy, France
- School and Conference on Analytic Number Theory (April 23-May 04, 2007), ICTP, Italy
- International Conference on Number Theory and Cryptography (Feb 23-27, 2007), HRI, Allahabad
- International Conference on Number Theory and Applications (Dec 27-29, 2006), RKM Vivekananda College, Chennai
- International Conference on Number Theory (Dec 1-5, 2006), HRI, Allahabad
- India-UK Number Theory Conference (Sept 18-23, 2006), IMSc, Chennai
- **33rd Annual Odisha Mathematical Society Conference** (Feb 4-5, 2006), Sambalpur University, Sambalpur
- International Conference on Number Theory and Mathematical Physics (December 20-22, 2005), Srinivas Ramanujan Center, Kumbakonam
- AMS-INDIA Conference (December 17-20, 2003), IISc, Bangalore

Teaching:

- M463 (Finite Fields), Spring 2023, NISER
- M307/M703 (Number Theory), Fall 2022, NISER
- MA605 (Topology I, Ph. D.), Spring 2022, NISER
- M463 (Finite Fields), Fall 2021, NISER
- M308 (Complex Analysis), Spring 2021, NISER

- M403 (Commutative Algebra), Fall 2020, NISER
- M553 (Classical Groups), Spring 2020, NISER
- MA601(Algebra-I, Ph.D.), Fall-2019, NISER.
- M101 (Mathematics-I), Summer-2019, NISER.
- MTH302 (Rings and Modules), Spring 2019 (IISER, Berhampur)
- M402 (Representations of Finite Groups), Spring 2019, NISER
- M463 (Finite Fields), Fall 2018, NISER
- M102 (Mathematics-II), Summer-2018, NISER.
- M402 (Representations of Finite Groups), Spring 2018, NISER
- M463 (Finite Fields), Fall 2017, NISER
- M205 (Linear algebra), Spring 2017, NISER.
- M101 (Mathematics-I), Fall-2016, NISER.
- M101 (Mathematics-I), Summer-2016, NISER.
- M458 (Algebraic Number Theory), Spring-2016, NISER.
- M601 (Algebra-I, Ph.D.), Fall-2015, NISER.
- M560 (Modular Forms of one variable), Spring-2015, NISER.
- M302 (Algebra-III), Fall-2014, NISER.
- M307 (Algebra-IV), Spring-2014, NISER.
- M601 (Algebra-I, Ph.D.), Fall-2013, NISER.
- M307 (Algebra-IV), Spring-2013, NISER.
- M461 (Commutative Algebra), Fall-2012, NISER.
- M601 (Algebra-I, Ph.D.), Fall-2012, NISER.
- M459/M605 (Algebraic Topology), Spring-2012, NISER.
- M601 (Algebra -I, Ph.D.), Fall-2011, NISER.
- M202 (Algebra-I), Fall-2011, NISER.
- ME601/ME801 (Commutative Algebra), Spring-2011, NISER.
- M501 (Topology), Fall-2010, NISER.
- MATH 20160 (Polynomial Rings and Group Theory), Spring-2009, University College Dublin.

Involvement in other activities:

- Chairperson, School of Mathematical Sciences, NISER (2022-)
- Member, Board of Studies (Mathematics), HBNI (2021-)
- NEST Co-ordinator, NISER (2020-22)
- Chairman, Task Force for COVID-19, NISER (2021)
- Chairman, Coordination Committee for Quarantine, NISER (2020–21)
- Member, IWC, NISER (2019–2021)
- Chief Warden, NISER (2018-2020)

- Member, Library Advisory Committee, NISER (2012–2020)
- Member, PGCI, NISER (2013-14)
- Convenor, PGCS (SMS), NISER (2013-14)
- External Reviewer for a Discovery grant proposal for Natural Science and Engineering Research Council of Canada (NSERC) 2013-14
- Referee for Journals
- Reviewer for AMS Mathematical Review (30 Reviews)

Outreach Program:

- Modular forms and the number of representations of a natural number by certain quadratic forms, NCMAA 2022, GIET University, Gunupur (June 11-12, 2022)
- Sums of squares and modular forms (Webinar), GIET University, Gunupur (December 1, 2020)
- Supercongruences (Webinar), GM University Sambalpur (November 20, 2020)
- Representations of integers as sums of squares and modular forms (Webninar), Anchal College, Padampur (November 16, 2020)
- Faculty Development Program on Multidisplinary approach of Mathematics as engineering applications-2019, CVRCE, Bhubaneswar (December 23-28, 2019)
- Group Representations (4 lectures), Annual Foundation School-I, HRI, Prayagraj (May 6-June 1, 2019)
- Ramanujan and Mathematics (on the occasion of National Mathematics Day), EATM, Khordha (December 22, 2018)
- Ramanujan and Mathematics (on the occasion of National Mathematics Day), Regional Science Center, Bhubaneswar (December 22, 2018)
- Prime numbers, Orientation Program in Mathematics, Anchal College, Padampur (November 17, 2018)
- Prime Numbers, Orientation Program in Mathematics, Bandhu Ashram, Lankapada, Jagatsinghpur (November 11, 2018)
- Sum of Sets in Number Theory, Orientation Program in Mathematics, Larambha College, Larambha (September 29, 2018)
- Finite Group Representations (4 lectures), Refresher Course for College Teachers, KSOM, Calicut (September 6–9, 2018)
- Group Theory (24 Lectures), Training Program in Mathematics, NISER, Bhubaneswar (May-June 2018)
- Representations of integers as sums of squares and modular forms, UGC State level Seminar on "Recent trends in Mathematics and it's applications", B. B. Auto. Mahavidyala, Chandikhole (March 24, 2018)

- Symmetry in Sciences (4 lectures) at Refreshers Course in Basic Sciences, Sambalpur University (March 16–17, 2018)
- Group Theory (4 Lectures), Summer Outreach Program in Mathematics, NISER, Bhubaneswar (June 2017)
- Faculty Development Program on Computational Mathematical Methods and their application in enginneering -2016, CVRCE, Bhubaneswar (December 12-18, 2016)
- Group Theory (4 Lectures), Summer Outreach Program in Mathematics, NISER, Bhubaneswar (June 2016)
- Group Theory (4 Lectures), Annual Foundation School-I, NISER, Bhubaneswar (December 1-27, 2013)
- Speaker at Rural Mathematics Olympiad/ Rural Mathematics Talent Search/ Junior Mathematics Olympiad/ Regional Mathematics Olympiad Programme in Odisha organised by IMA, Bhubaneswar (2006, 2007, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018)
- Complex Analysis in Number Theory (4 lectures), Teacher's Enrichment Workshop on Complex Analysis, Vivekananda College, Burdwan (December 27-31, 2013)
- Symmetry (4 lectures), Workshop in Excitement in Physics (June 2013), North Orissa University, Baripada.
- Speaker at Sessions for Mathematics Olympiad Students, UCD, Dublin (2009, 2010)
- Interactive Mathematics Training Camp (2006, 2007), Regional Institute of Education, Bhubaneswar (sponsored by NBHM), organised by Institute of Mathematics and Applications, Bhubaneswar.

References:

Prof. B. Ramakrishnan Indian Statistical Institute (North-East Center) Punioni, Solmara Tezpur, Assam - 784501 email: ramki@isine.ac.in

Prof. Nils-Peter Skoruppa Univeristy of Siegen Fachbereich 6 - Mathematik III Walter-Flex-Str. 3 57068 Siegen, Germany email: nils.skoruppa@uni-siegen.de

Prof. Shuichi Hayashida Department of Mathematics Joetsu University of Education 1 Yamayashikimachi, Joetsu Nigata 943-8512, Japan Email: hayasida@juen.ac.jp Prof. Robert Osburn School of Mathematical Sciences University College Dublin Belfield, Dublin 4, Ireland email: robert.osburn@ucd.ie

Prof. R. Thangadurai Harish-Chandra Research Institute Chhatnag Road, Jhusi Allahabad- 211019, India email: thanga@hri.res.in

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