Dr. Ripan Saha

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Department of Mathematics https://sites.google.com/site/ripansahamaths/

College Para, Raiganj

Uttar Dinajpur, West Bengal-733134,INDIA Phone: (+91)8481996445

Current Position Professor(Assistant)

Raiganj University, India.

Research Interest Associative and Non associative rings and algebras, Group theory.

Education Jadavpur University, Kolkata

Ph.D., 2017-2021.

Indian Institute of Science Education and Research, Mohali

DST-INSPIRE Fellow, Mathematics, January 2014-August 2016.

Indian Institute of Technology Kanpur

M.Sc., Mathematics, 2013.

Jadavpur University

B.Sc., Mathematics, 2011.

Research Experience Stat. Math. Unit, Indian Statistical Institute, Kolkata

Visiting Scholar, December 2015-July 2016

Supervisor: Prof. Goutam Mukherjee.

Awards and Fellowships

DST-INSPIRE Research Fellowship

2014-2016.

DST-INSPIRE SHE

2008-2013.

CSIR-UGC NET

June 2013. IIT-GATE

2013.

Summer Research Program Fellowship

Indian Academy of Sciences

2012.

SPIM Fellowship

Harish Chandra Research Institute

2012.

IIT JAM

2011.

Publications/Preprints

- On Hom-Groups and Hom-Group actions
 (With Liangyun Chen, Tianqi Feng, Yao Ma, Hongyi Zhang), arXiv:2003.14193v2.
- 2. Cup-product in equivariant Hom-Leibniz cohomology.
- 3. On certain classes of algebras in which centralizers are ideals, (with David A. Towers), To appear, *J. Lie Theory*, 2021, arXiv:2004.12110.
- 4. Involutive and oriented dendriform algebras (with A. Das) *Journal of Algebra*, 581 (2021) 63-91..
- 5. Equivariant one parameter formal deformations of Hom-Leibniz algebras, (with Goutam Mukherjee), arXiv:1905.07721, To appear, Communications in Contemporary Mathematics (2021).
- 6. On equivariant dendriform algebras (2020), (with A. Das), Colloquium Mathematicum 164 (2021), 283-303.
- 7. Cohomology and deformations of oriented dialgebras, (with Ali Koam), arXiv:2001.02386.

 Journal of Homotopy and Related Structures, 15, 511–536 (2020)
- 8. On Leibniz algebras whose centralizers are ideals, (with Pratulananda Das), arXiv:1903.09932.

 Indian Journal of Pure and Applied Mathematics,
 51, 1555-1571 (2020). https://doi.org/10.1007/s13226-020-0481-x.
- 9. Cup-product in Hom-Leibniz cohomology and Hom-Zinbiel algebras (2020), Communications in Algebra, 48:10, 4224-4234.
- 10. On some special property of the Farey sequence, (2019), Mathematical Journal of Interdisciplinary Sciences, 7(2), 121-123
- 11. Equivariant associative dialgebras and its one-parameter formal deformations (2019), *Journal of Geometry and Physics*, Volume 146, December 2019, 103491.
- 12. Cup-product for equivariant Leibniz cohomology and Zinbiel algebras (2019) (with Goutam Mukherjee), Algebra Colloquium, Vol. 26, No. 2, 2019, 271-284.

Research work in Progress

13. Relative Rota-Baxter operators on dialgebras (2021), (with A. Das).

Journal Refereeing Service 1. Colloq. Math.

2. Reviewer for AMS MathSciNet.

Grants Received

ICTP Travel Grant(2015) To visit: ICTP, Trieste, Italy.

ICTS Travel Grant(2017) To visit: ICTS, Bangalore, India.

CIMPA Travel Grant(2018)

To visit: Institute of Mathematics, Tashkent, Uzbekistan.

CRM-CIMPA Fellowship (2021)

Laureates for the Intensive Research Programme on Higher Homotopica

Centre de Recerca Matemàtica, Bercelona.

Talks CIMPA(2018) Research talk, Tashkent, Uzbekistan,

Equivariant Leibniz Cohomology (September, 2018).

Jadavpur University, Kolkata, India.

Leibniz algebra with a finite group action and its cohomology (February

Teaching Raiganj University

> Instructor, M.Sc. 1st Semester, A Course on Abstract Algebra, 17-18. Instructor, Real Analysis, Undergraduate 4th Semester, 2016-2017.

Languages and Skills English, Hindi, Bengali (Mother tounge),

LATEX, MS-Word, C-programming.

Invited speaker "Winter school on basic mathematics for college students",

Indian Statistical Institute (ISI) north east center at Tezpur,

26th December 2016 to 3rd January 2017.

Balurghat College Mathematics Camp,

Balurghat College, West Bengal, India, 21st October 2018 to 10th November 2018.

Conferences 30th Annual Conference of

attended Ramanujan Mathematical Society,

> IISER Mohali, India, May 15-17, 2015.

Workshops/ Schools attended:

CIMPA-Non-associative algebra and applications,

Uzbekistan Academy of Sciences V.I.Romanovskiy Institute of Mathematics, 10th September to 21st September 2018.

Geometry, Groups and Dynamics,

International Center for Theoretical Sciences (ICTS), India, 06th November 2017 to 24th November 2017.

AIS Algebraic Topology,

NEHU, Shillong, India, 12th June 2016 to 1st July 2016.

AIS Differential Geometry,

IIT Bombay, India, 9th May 2016 to 28th May 2016.

Advanced school and workshop on Geometry of discrete actions,

International Center for Theoretical Physics (ICTP), Trieste, Italy, 24th August to 4th September 2015.

Topology,

Indian Statistical Institute (ISI), Kolkata, 14th to 21st December 2015.

Some High Points of Undergraduate Mathematics Education,

Ramanujan Mathematical Society (RMS), May 14, 2015.

Advanced Instructional School on Quadratic forms,

IISER Mohali, India, 2nd to 21st June 2014.

Advanced Instructional School on Lie Groups,

Indian Institute of Technology(IIT), Bombay, India, July 7th to 26th 2014.

Lattices: Geometry and Dynamics,

IISER Mohai, India, 17th to 22nd December 2014.

ICTS-Knot theory and its applications,

IISER Mohali,India, 10th December to 20th December 2013 Workshop/ Seminar organized

National seminar on Mathematics and its Applications (2017),

At Raiganj University during 20th and 21st March 2017.

Summer training program for school students(2018),

Raiganj University.

National seminar on Recent Trends of Mathematical Sciences

and Its Applications (2019),

At Raiganj University during 14th and 15th March 2019.

Administrative Activities

Assistant controller of Examinations (Offg.),

Raiganj University, June 2017-February 2018.

Member of Board of Studies,

Raiganj University.

Programme Officer, NSS Unit-V,

Raiganj University.

Center-in-charge for PG examination (2017),

Raiganj University.

References Prof. Goutam Mukherjee

Stat.-Math Unit

Indian statistical Institute

goutam@isical.ac.in

Prof. Kapil Hari Paranjape Department of Mathematics

IISER Mohali.

kapil@iisermohali.ac.in

Dr. Krishnendu Gongopadhyay

Department of Mathematical Sciences

Indian Institute of Science Education and Research Mohali.

krishnendug@gmail.com

Prof. Pratulananda Das

Department of Mathematics Jadavpur University

pratulananda@yahoo.co.in