Biswarup Biswas

Curriculum Vitae

Department of Mathematics
Mahindra University, Hyderabad
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DOB: July 7, 1989

Work Experience

June 2021 –Present **Mahindra University, Hyderabad, India**, *Assistant Professor*, *Department of Mathematics*.

March 2019 –March 2021 **Indian Institute of Technology Delhi, New Delhi, India**, *Post Doctoral Fellow*, *Department of Mathematics*.

Education

2014–2018 : **PhD, Mathematics**, *SRM Institute of Science and Technology*, Kattankulathur, India.
Thesis title: Non Linearly Stable High Order Accurate Efficient Schemes for System of Hyperbolic Conservation Laws.
Supervisor: Dr. Ritesh Kumar Dubey

2011–2013 : **Master of Science, Mathematics**, *Indian Institute of Technology Madras*, Chennai, India.
CGPA : 8.41/10

2007–2010 : **Bachelor of Science, Mathematics**, *University of Kalyani*, Kalyani, India.
Percentage : 79.37

Field of Interest

Computational methods for Partial Differential Equations
○ Non-linear stability of high order schemes
○ Entropy stable scheme
○ Discontinuous Galerkin (DG) schemes
○ Residual distribution schemes

Publications

Journal Articles

2021 Biswarup Biswas, Harish Kumar, and Anshu Yadav. Entropy stable discontinuous Galerkin methods for ten-moment Gaussian closure equations. *Journal of Computational Physics*, volume 431, page 110148, apr 2021.

2020 Rathan Samala and Biswarup Biswas. Arc Length-Based WENO Scheme for Hamilton–Jacobi Equations. *Communications on Applied Mathematics and Computation*, aug 2020.

2020 Biswarup Biswas and Ritesh Kumar Dubey. ENO and WENO schemes using arc-length based smoothness measurement. *Computers and Mathematics with Applications*, volume 80, pages 2780–2795. Elsevier Ltd, 2020.

2018 Ritesh Kumar Dubey and Biswarup Biswas. Suitable diffusion for constructing non-oscillatory entropy stable schemes. *Journal of Computational Physics*, volume 372, pages 912–930. Academic Press Inc., nov 2018.

2018   Biswarup Biswas and Ritesh Kumar Dubey. Low dissipative entropy stable schemes using third order WENO and TVD reconstructions. *Advances in Computational Mathematics*, volume 44, pages 1153–1181. Springer New York LLC, aug 2018.

2017   Ritesh Kumar Dubey and Biswarup Biswas. An Analysis on Induced Numerical Oscillations by Lax-Friedrichs Scheme. *Differential Equations and Dynamical Systems*, volume 25, pages 151–168. Springer (India) Private Ltd., apr 2017.

2016   Ritesh Kumar Dubey, Biswarup Biswas, and Vikas Gupta. Local maximum principle satisfying high-order non-oscillatory schemes. *International Journal for Numerical Methods in Fluids*, volume 81, pages 689–715. John Wiley and Sons Ltd, aug 2016.

Preprints

2021   Biswarup Biswas, Harish Kumar, and Deepak Bhoriya. Entropy stable discontinuous Galerkin schemes for the Relativistic Hydrodynamic Equations, 2021.

Teaching

Spring 2021 :   **MTP290: Computing Laboratory**, *Teaching Assistant*, IIT Delhi.

Fall, 2020 :   **MTL100: Calculus**, *Teaching Assistant*, IIT Delhi.

Spring, 2020 :   **MTP290: Computing Laboratory**, *Shared Instructor*, IIT Delhi.

Fall, 2019 :   **MTL712: Computational Methods for Differential Equations**, *Teaching Assistant*, IIT Delhi.

Fellowships & Awards

2019   **Institute Postdoctoral Fellowship (IPDF)** from IIT Delhi, India.

2019   **National Postdoctoral Fellowship (N-PDF)** by SERB, Govt. of India. (Not availed)

2017   Best paper presentation in international conference NDETMC-2017.

2016   **CSIR Senior Research Fellowship (SRF-direct)** for PhD.

2014   Cleared National examination **CSIR-UGC NET** for Lectureship.

2014   Awarded **Gold Medal** in Research Day (2014) at SRM University.

2011   Secured all India rank 121 in **IIT JAM** examination for Post Graduation study in IIT's.

2011   **IIT Madras Merit Cum scholarship.**

2010   West Bengal **merit cum means scholarship** for Post Graduation study.

Computer skills

Programming Languages	C, C++, Python
Notable Packages	Tensorflow and Keras (Python), Petsc (C/Fortran)
Other software	MATLAB, Mathematica, Latex

Personal Details

Nationality	Indian
Date of birth	July 7, 1989
Sex	Male
Marital status	Unmarried
Permanent Address	Vill + PO: Hanspukuria, Dist: Nadia, West Bengal, Pin- 741160, INDIA
Languages	Bengali (Native), English (Fluent), Hindi (Fluent)

Referees

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