CURRICULUM VITAE

Madhumita Gangopadhyay

Assistant Professor,

Department of Mathematics,

University of Mumbai.

Educational Qualifications:

B.Sc.(Honours in Mathematics), Presidency College, Calcutta University, 1992.

M.Sc.(Mathematics), Indian Institute of Technology, Kharagpur, 1994.

Ph.D.(Mathematics), Indian Institute of Technology, Mumbai, 2003.

Worked on a CSIR project "Analytical and Numerical Studies of quasilinear systems of hyperbolic and parabolic PDEs with applications" under the guidance of Prof. V.D.Sharma at the Department of Mathematics, I.I.T, Bombay from May 2002 to June 2004.

Research Interests: Partial Differential Equations, Nonlinear waves, Mechanics of Fluids.

Teaching Experience:

1. Lecturer at Thadomal Shahani Engineering College, Bandra, Mumbai from July 2004 to July, 2005.
2. Assistant Professor at Guru Nanak Khalsa College of Arts, Science and Commerce, Matunga, Mumbai (July, 2005-March, 2013).
3. Assistant Professor at Department of Mathematics, University of Mumbai (March 2013-till date).

Publications:

1. On wave propagation in a radiating nonideal fluid, Madhumita G., Bulletin of the Calcutta Mathematical Society, 111, (4) 351-362 (2019).
2. Nonlinear wave propagation through a radiating van der Waals fluid with a variable density, Madhumita Gangopadhyay, a chapter in Applied Mathematics and Scientific Computing (part of Trends in Mathematics Book series), Birkhauser(Cham), 347-355 (2019).
3. Evolution of planar and cylindrically symmetric magneto-acoustic waves in a van der Waals fluid, Triveni Shukla, G.Madhumita and V.D.Sharma, International J. Nonlinear Mechanics, 91, 58-68 (2017).

4. Nonlinear Wave Propagation through Stratified Atmosphere, Madhumita G. and V.D.Sharma, Journal of Mathematical Analysis and Applications(Elsevier) 311, 13-22 (2005).
5. Imploding cylindrical and spherical shock waves in a non-ideal medium, G.Madhumita and V.D.Sharma, Journal of Hyperbolic Differential Equations (World Scientific) Vol 1, No.3, 521-530 (2004).
6. Dissipative waves in a relaxing gas with mixed nonlinearity, V.D.Sharma, G. Madhumita, S.A.V.Manickam, Nonlinear Dynamics 33: 283- 299 (2003) Kluwer Academic Publishers, Springer.
7. Propagation of strong converging shock waves in a gas of variable density, G. Madhumita and V.D.Sharma, Journal of Engg. Math. 46, 55-68 (2003) Kluwer Academic Publishers, Springer.

Conferences:

1. Presented a paper "Evolution of magnetoacoustic waves in a medium with mixed nonlinearity" at the National Conference on Differential Equations and Applications held on 14th-15th February, 2014 at the Department of Mathematics, University of Mumbai.
2. Presented a paper "High frequency small amplitude disturbances in a radiating Van der Waals gas with mixed nonlinearity" in the UGC sponsored National Conference on Confluence of Emerging Trends in Multidisciplinary Areas to Mathematics (CETMRAM 2016) held on 19th-20th December 2016 at the Department of Mathematics, Kirti M. Doongursee College of Arts, Science and Commerce in association with IAIAM and IDOL, University of Mumbai.
3. Attended a faculty development programme entitled "Soft Skills for teachers" at UGC-HRDC, Savitribai Phule Pune University from 3rd -12th July, 2019.

Invited Talks:

1. Delivered a guest lecture on 28th August, 2018 at Guru Nanak College of Arts, Science and Commerce, GTB Nagar, Mumbai.
2. Delivered an invited talk at the International Conference on Advances in Mathematical Sciences (ICAMS) held at VIT, Vellore during December 1-3, 2017 organized by the Department of Mathematics, School of Advanced Sciences, VIT, Vellore, India.
3. Delivered a talk at Harishchandra Maths Fest, the intercollegiate seminar and poster competition for TYB.Sc. students at the Department of Mathematics, Guru Nanak Khalsa College of Arts, Science and Commerce, Matunga in January, 2017.
4. Delivered an invited talk on 5th January, 2015 at the Indian Science Congress held in the University of Mumbai.

Research Projects:

1. Completed one minor research project entitled "Evolution of magnetogasdynamics waves in a medium with mixed nonlinearity" (Ref No.APD/237/98 of 2010) for an amount of Rs.10,000/- granted by University of Mumbai for a period of 1 year.
2. Completed a UGC sanctioned Major Research Project F No.41-788/2012(SR) entitled "Analytical and Numerical Study of nonlinear gasdynamic waves" for a period of 3 years w.e.f 1.7.2012. Sanctioned amount : Rs. 5,15,000/-

Research Students

No. of Ph.D. students- 4 (Ongoing)

No. of M.Phil students – 1(Completed) and 2 (Ongoing).

Extension Activities:

1. Member of Admission, Examination and Placement Committees of the Department.
2. Organized a short term course "Applications of Linear Algebra" with Dr. Anuradha Garge at UGC-HRDC, University of Mumbai under RUSA from August 7th to August 12th, 2017.
3. Participated in M.Sc. and M.Phil. syllabus making committees of the Department during 2019-20 and 2020-21.

Other Activities:

1.Was Vice Chancellor's nominated expert for selection of Assistant Professor in Mathematics and Statistics at Anna Leela College of Commerce and Economics, Mumbai in September,2017.

2.Chaired a technical session in the International Conference on Advances in Mathematical Sciences-2017 at the Department of Mathematics, School of Advanced Sciences, VIT, Vellore on 2nd December, 2017.

3.Chaired a technical session at UGC Proposed National Seminar "Innovative Practices and Emerging Trends: Quality Research in Higher Education" on 3rd February, 2018 at NSS College of Commerce and Economics, Tardeo, Mumbai.

4.Chaired a Technical session at the "Conference on Efficacy of software tools" for mathematical modelling (ICESTMM '19) held at Thadomal Shahani Engineering College, Bandra (west), Mumbai on 19th April, 2019.