DIPENDRA REGMI

Associate Professor, University of North Georgia
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EDUCATION

Doctor of Philosophy, Mathematics
Oklahoma State University, Stillwater, OK
Dissertation: A Study on the Global Regularity for Two-dimensional Magnetohydrodynamic and Boussinesq Equations
Advisor: Dr. Jiahong Wu

Masters of Science, Mathematics
Oklahoma State University, Stillwater, OK

Masters of Science, Mathematics
Tribhuvan University, Kathmandu, Nepal

Post Graduate Diploma in Mathematics
International Centre for Theoretical Physics (ICTP), Italy

RESEARCH INTEREST

Partial Differential Equations, Ordinary Differential Equations, Numerical Analysis, Mathematical Modeling, and Undergraduate Teaching Research

TEACHING INTEREST

Undergraduate and graduate mathematics courses ranging from Developmental Mathematics and Calculus Sequences to upper-level courses such as Differential Equations, Operations Research, Linear Algebra, Advanced Calculus, Probability and Statistics

PROFESSIONAL EXPERIENCE

Associate Professor, University of North Georgia, Gainesville, GA	Aug 2021-present
Assistant Professor, University of North Georgia, Gainesville, GA	Aug 2017-July 2021
Assistant Professor, Farmingdale State College, Farmingdale, NY	Sept 2014-July 2017
Visiting Assistant Professor, University of Central Oklahoma, OK	Aug 2013-May 2014
Graduate Teaching Assistant, Oklahoma State University, OK	Aug 2006 -Jul 2013

PUBLICATIONS:

1. *Stability and exponential decay for magnetohydrodynamic equations*, Proceedings of the Royal Society of Edinburgh, DOI:10.1017/prm.2022.23, 1-28(2022)
2. *The 2D magneto-micropolar equations with partial dissipation*, Mathematical Method in Applied Sciences, **42**, Issue 12 (2019), 4305-4317

3. *Regularity criteria on the 2D anisotropic magnetic Bénard Equations* with R. Sharma, J. Math. Study, Vol. 52, No. 1(2019), 60-74

4. *Global regularity criteria for 2D micropolar equations with partial dissipations*, International Conference on Applications of Mathematics to Nonlinear Sciences. Electron. J. Diff. Eqns., Conference 24 (2017), 103-113

5. *A regularity criterion for two-and-half dimensional magnetohydrodynamic equations with horizontal dissipation and horizontal magnetic diffusion,* Mathematical Method in Applied Sciences, **40**, Issue 5 (2017), 1497-1504

6. *Global weak solutions for the two-dimensional magnetohydrodynamic equations with partial dissipation and diffusion,* Nonlinear Analysis, **144** (2016), 157-164

7. *Global regularity for the 2D magneto-micropolar equations with partial dissipation,* with J. Wu, J. Math. Study, Vol **49**, No.2(2016), 169-194

8. *Generalized 2D Euler-Boussinesq equations with a singular velocity,* with D. KC, L. Tao and J. Wu, Journal of Differential Equations, **257**, No.1(2014), 82-108

9. *The 2D MHD equations with horizontal dissipation and horizontal magnetic diffusion,* with C. Cao and J. Wu, Journal of Differential Equations, **254**, No.7(2013), 2661-2681

UNPUBLISHED WORK

1. *Analysis of the Navier Stokes equations and its applications,* creative component at Oklahoma State University

2. *Galois theory and its application,* ICTP Diploma dissertation

AWARDS, HONORS, AND GRANTS

1. *Presidential Innovation Award (Amount $5000 jointly with Dr. Ramjee Sharma)* "Improving Students Engagement and Readiness in Math Classes through Innovative Use of Technology: A Flipped Section Approach", University of North Georgia, Gainesville 2020 Spring

2. *National Science Foundation (NSF) (Co-PI, Amount: $24,000)* for 38th Southeastern-Atlantic Regional Conference on Differential Equations, University of North Georgia, Gainesville 2018

3. *Students First Grants (PI, Amount: $2500),* Promoting Mathematics Learning through Math Club Activities, Farmingdale State College, Farmingdale, NY 2017

4. *Summer research support* awarded by the Department of Mathematics, Farmingdale State College, Farmingdale, NY Summer 2015 and 2016

5. *AMS graduate student travel grant* for the AMS Sectional Meeting at University of Colorado Boulder, Boulder, CO April 2013

6. *OSU Math department travel grant* for AMS Joint Meeting in San Diego, CA Jan 2013

7. *NSF student travel grant* for AIMS Conference on Dynamical Systems, Differential Equations and Applications Orlando, Florida July 2012

8. *Schiller J. Scroggs Distinguished Graduate Fellowship Award* awarded by the Department of Mathematics, OSU April 2012

9. *OSU Math department travel grant* for AMS Section Meeting in Washington DC and University of Kansas, Lawrence March 2012

10. *The E. K. McLachlan Award,* awarded by the Department of Mathematics, OSU April 2011

11. *NSF student travel grant* for Introductory Workshop: Free Boundary Problems, Theory and Applications, Berkeley, CA Jan 2011

12. *NSF student travel grant* for Prairie Analysis Seminar 2010, Lawrence, KS Nov 2010

13. *UNESCO Scholarship* to study advanced course in mathematics for one year at International Centre for Theoretical Physics (ICTP), Trieste, Italy Aug 2002

SELECTED PRESENTATIONS

1. *Some recent results on the global regularity of two-dimensional magnetohydrodynamic equations.t*, AMS Virtuall meeting April 2022

2. *Global regularity for the 2D magneto-micropolar equations with partial dissipation* , University of North Georgia, Oakwood, GA April 2022

3. *A study on students' online engagement and their performance on in-class assignment*, AMS sectional meeting, University of Auburn, Auburn, AL March 2019

4. *The 2D magneto-micropolar equations with partial dissipation,* AMS & MAA Joint Mathematics Meetings, Baltimore, MD Jan 2019

5. *The 2D anisotropic magnetic Bénard Equations*, 38th Southeastern-Atlantic Regional Conference on Differential Equations, University of North Georgia, Oakwood, GA Oct 2018

6. *Global regularity for the 2D magneto-micropolar equations with partial dissipation,* AMS Sectional Meeting, Vanderbilt University, Nashville, TN April 2018

7. *The 2D magnetohydrodynamic equations*, University of North Georgia, Oakwood, GA Nov 2017

8. *Global weak solution of magnetohydrodynamic equations with partial dissipation and diffusion*, 38th Southeastern-Atlantic Regional Conference on Differential Equations, Kennesaw State University, Kennesaw, GA Oct 2017

9. *Global regularity for the 2D magneto-micropolar equations with partial dissipation*, Celebration of the Scholarship, Farmingdale State College, Nov 10 2016

10. *The global regularity of magnetohydrodynamic equations*, Spring Eastern Sectional Meeting, State University of New York at Stonybrook, Stonybrook, NY March 2016

11. *Some recent results on the global regularity of magnetohydrodynamic equations*, Farmingdale State College, NY March 2016

12. *The two-and-half dimensional magnetohydrodynamic equations with horizontal dissipation and horizontal magnetic diffusion*, AMS & MAA Joint Mathematics Meetings, Seattle, WA Jan 2016

13. *The global regularity of two-and-half dimensional magnetohydrodynamic equations*, Fall Eastern Sectional Meeting, Rutgers University, New Brunswick, NJ Nov 2015

14. *The 2D Euler-Boussinesq equations with a singular velocity,* AMS & MAA Joint Mathematics Meetings, San Antonio, TX Jan 2015

15. *The global regularity of 2D MHD equations,* NSF-CBMS, OSU, OK July 2014

16. *A study on the global regularity results for the 2D magnetohydrodynamic equations,* AMS & MAA Joint Mathematics Meetings, Baltimore, MD Jan 2014

17. *The global regularity of dynamical systems,* Oklahoma-Arkansas MAA Meetings, Stillwater, OK April 2013

18. *The 2D Euler-Boussinesq equations with a logarithmically supercritical velocity,* Special Session on Analysis of Dynamics of the Incompressible Fluids, AMS Spring Western Sectional Meeting, University of Colorado Boulder, Boulder, CO April 2013

19. *Global regularity results for the 2D MHD equations,* AMS & MAA Joint Mathematics Meetings, San Diego, CA Jan 2013

20. *The global regularity of the 2D MHD equations,* Invited Speaker, AIMS Special Session Nonlinear and Dispersive Partial Differential Equations, Orlando, FL July 2013

21. *The 2D anisotropic magnetohydrodynamic equations,* Spring Central Section Meeting, University of Kansas, Lawrence, KS March 30-April 1, 2012

22. *The 2D MHD equations with horizontal dissipation and horizontal Magnetic Diffusion*, Spring Eastern Sectional Meeting, George Washington University, Washington, DC March 2012

23. *The 2D MHD equations with horizontal dissipation and horizontal magnetic diffusion,* The Third Oklahoma PDE Workshop, Oklahoma State University, Stillwater, OK Feb 2011

24. *The blow-up problem and a sufficient condition to control L^2-norm of vorticity for 3D Euler equations*, Oklahoma State University, Stillwater, OK Feb 2011

25. *The Navier-Stokes equations and its analysis,* Oklahoma State University, OK July 2008

26. *Galois theory and its applications,* ICTP, Trieste, Italy May 2003

WORKSHOPS AND CONFERENCES

1. *AMS Sectional Meeting*, Auburn University March 2019
2. *AMS & MAA Joint Mathematics Meetings*, Baltimore, MD Jan 2019
3. *38th Southeastern-Atlantic Regional Conference on Differential Equations*, UNG Oct 2018
4. *Collaborative Research in Mathematical Sciences* by ANMA, Mercer University, GA May 2018
5. *AMS Sectional Meeting*, Vanderbilt University, Nashville, TN April 2018
6. *University of North Georgia New Teacher Institute Teaching Conference* 2017-2018
7. *38th Southeastern-Atlantic Regional Conference on Differential Equations*, Kennesaw State University, GA Oct 2017
8. *AMS and MAA Joint Mathematics Meetings*, Atlanta, GA Jan 2017
9. *Conference on Mathematics of Signals*, Farmingdale State College Sept 2016
10. *American Mathematical Eastern Sectional Meeting*, State University of New York at Stony Brook, Stony Brook March 2016
11. *AMS and MAA Joint Mathematics Meetings, Seattle*, WA, Jan 2016
12. *American Mathematical Society, Fall Eastern Sectional Meeting*, Rutgers University, New Brunswick, NJ Nov 2015
13. *AMS and MAA Joint Mathematics Meetings*, San Antonio, TX Jan 2015
14. *Applied mathematics and Economic Seminar* at FSC 2014-2015
15. *The Financial Mathematics Conference at FSC* April 2015

16. Center for Teaching, Learning and Technology (CTLT 2015) Annual Conference, Farmingdale State College, NY April 2015
17. CTLT Developing Teaching Strategies and Objectives, Farmingdale State College, NY Feb 2015
18. CTLT Workshops, Farmingdale State College, Fall 2014, Spring 2015
19. Engaging Self-Awareness: Contemplative Leadership, Farmingdale State College, NY Nov 2014
20. *NSF-CBMS, OSU, OK* July 2014
21. *AMS & MAA Joint Mathematics Meetings*, Baltimore, MD Jan 2014
22. *AIMS Special Session Nonlinear and Dispersive PDEs*, Orlando, FL July 2013
23. *Oklahoma-Arkansas MAA Meetings*, Stillwater, OK April 2013
24. *AMS Spring Western Sectional Meeting*, University of Colorado Boulder, Boulder, CO April 2013
25. *AMS & MAA Joint Mathematics Meetings*, San Diego, CA Jan 2013
26. *Spring Central Section Meeting*, University of Kansas, Lawrence, KS April, 2012
27. *Spring Eastern Sectional Meeting*, George Washington University, Washington, DC March 2012
28. *OSU Graduate Teaching Assistant Conference on Teaching,* OSU, Stillwater, OK Jan 2012
29. *The Third Oklahoma PDE Workshop*, Oklahoma State University, Stillwater, OK Feb 2011
30. *Introductory Workshop: Free Boundary Problems, Theory and Applications*, MSRI, Berkeley, CA Jan 2011
31. *Tenth Prairie Analysis Seminar*, University of Kansas, Lawrence, KS Nov 2010
32. *First Oklahoma PDE Workshop*, Oklahoma State University, Stillwater, OK Nov 2009
33. *Applied math seminar*, Oklahoma State University, Stillwater, OK Aug 2008

SERVICE WORK AND OUTREACH ACTIVITIES

1. Annual Research Conference Proposal reviewer, UNG Spring 2020
2. CURCA Travel Grants reviewer, UNG Spring 2020
3. The Academic, Computing, Testing, and Tutoring (ACTT) Center Advisory (University-wide committee) committee Fall 2019- continue
4. Math Awards Committee Spring 2020
5. Promotional Outreach Committee (Chair), Department of Mathematics, UNG Spring 2019
6. Hiring Committee, Department of Mathematics, UNG Spring 2019
7. Applied Math Concentration Committee, UNG Spring 2019
8. Bachelor's Program committee member, UNG Spring 2019
9. Student Grade Appeals Committee (University-wide committee), UNG Fall 2019- Spring 2020
10. Test Administration Committee, UNG math tournament Spring 2018 and Spring 2019
11. UNG Commencement Ceremony Dec 2018 and Dec 2019
12. Open House, University of North Georgia, Oakwood, GA Fall 2018

13. Majors Fair, University of North Georgia, Oakwood, GA Fall 2018 and 2019
14. Referee for Journal of Differential Equation, Electronic J. Differential Equations, Dyn. Partial Differential equations, Journal of Non-linear Analysis
15. Co-Chair: Program Committee for 38th Southeastern-Atlantic Regional Conference on Differential Equations Oct 2018
16. Session Moderator of 38th Southeastern-Atlantic Regional Conference on Differential Equations Oct 2018
17. University of North Georgia Math Tournament Committee 2017- continue
18. Department representative for University in High School, Farmingdale State College, NY 2016-2017
19. Conference *Mathematics of Signal* organizing committee, Farmingdale State College, NY 2016
20. Facilitator for Collaborative Learning Workshop for Precalculus, Department of Mathematics, Farmingdale State College, SUNY Sept 2016-Aug 2017
21. Multi-cultural Committee, Farmingdale State College, SUNY Sept 2016- Aug 2017
22. Problem Solving Competition Coordinator, Department of Mathematics, Farmingdale State College, SUNY Sept 2016-May 2017
23. Departmental Seminar Organizer, Farmingdale State College Sept 2015-Sept 2016
24. Developed a new course Computational Mathematics, Farmingdale State College 2015
25. Hiring committee for a tenure-track math faculty, Farmingdale State College, Spring 2016 and 2017
26. Served as undergraduate students' advisor for eight students, Farmingdale State College 2013-2016
27. Open House, Farmingdale State College, NY Spring and Fall 2014- 2016
28. Goldwater Scholarship Faculty Advisor, Farmingdale State College Oct 2014-Aug 2017
29. Departmental Librarian, Mathematics Department, Farmingdale State College Sept 2014-Aug 2017

TECHNICAL SKILLS

- Familiar with MATLAB, MAPLE, MINITAB, LaTex, Microsoft Office (Word, Excel, PowerPoint), MyMathlab, MyStatlab, WebAssign

MEMBERSHIPS

- American Mathematical Society (AMS)
- Life Member: Association of Nepalese Mathematicians in America (ANMA)
- Life Member: Nepal Mathematical Society