

MD MAHMUDUL HASAN ANIK

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Department of Physics and Astronomy
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Education

- Doctor of Philosophy (Ph.D.) in Physics August 2020 – Present
University of Tennessee, Knoxville, TN, USA
- Master of Science (M.S.) in Mathematics August 2018 – May 2020
Ohio University, Athens, OH, USA
- Master of Science (M.S.) in Physics August 2016 – May 2018
Ohio University, Athens, OH, USA
- Bachelor of Science (B.S.) in Physics January 2011 – April 2015
University of Dhaka, Dhaka, Bangladesh

Research Projects

- **PhD Thesis** (in progress): Mass Distributions of Neutron Stars in Binary Systems and the Equation of State of Dense Matter, Advisor: Dr. Andrew Steiner, University of Tennessee
- **MS Thesis:** Further Development of a Data Analysis Framework for the MOLLER Experiment at Jefferson Lab, Advisor: Dr. Paul King, Ohio University
- **Machine Learning:** Predicting Neutron Star Equation of State using Deep Learning Neural Networks, Physics and Astronomy, University of Tennessee
- **Numerical Analysis in Linear Algebra:** Application of Randomized Kaczmarz Algorithm to Solve Factorized Linear Systems, Mathematics, Ohio University
- **Physics Education:** Designing and Coding Online Homework Problems for Calculus-based 2050-series Physics Classes, Physics and Astronomy, Ohio University

Academic Positions

- Graduate Research Assistant May 2021 – Present
Department of Physics and Astronomy
University of Tennessee, Knoxville, TN, USA
- Graduate Teaching Assistant August 2020 – May 2021
Department of Physics and Astronomy
University of Tennessee, Knoxville, TN, USA
Courses: PHYS 231 Electricity and Magnetism
- Teaching Assistant August 2019 – May 2020
Department of Mathematics
Ohio University, Athens, OH, USA
Courses: MATH 1200 College Algebra

- Graduate Assistant Aug 2018 – May 2019
 Department of Mathematics
 Ohio University, Athens, OH, USA
 Courses: MATH 1350 Survey of Calculus
- Teaching Assistant Aug 2016 – May 2018
 Department of Physics and Astronomy
 Ohio University, Athens, OH, USA
 Courses: PHYS 2051 General Physics I, PHYS 3011 Thermal Physics, PHYS 4032 Electricity and Magnetism 2

Scholarships/Awards

- Robert Birkhoff Fellowship (2021–23), Physics and Astronomy, University of Tennessee
- Graduate Recruitment Scholarship (2018), Mathematics, Ohio University

Trainings

- National Nuclear Physics Summer School (2023), National Institute for Nuclear Theory (INT)
- College Mathematics Teaching for Teaching Assistants, Mathematics, Ohio University

Technical Skills

- **Expertise:** Numerical Analysis, Algorithms, Machine Learning, Deep Learning Neural Network
- **Programming/Applications:** C++, C, Python, MATLAB, Mathematica, CERN ROOT, Maple

Leadership/Activities

- Vice President (2021-22), Graduate Physics Society, University of Tennessee
- Executive Committee Member (2019–20), Math Club, Ohio University
- Activity Coordinator (2017), Physics & Astronomy Open House, Ohio University