Subekshya Bidari

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Education

May 2022 **PhD Applied Mathematics**, *Advised by Zachary Kilpatrick*, University of Colorado Boulder, (Expected).

May 2020 **Masters of Science**, *Applied Mathematics*, University of Colorado Boulder.

May 2017 **Bachelors of Science**, *Mathematics*, Trinity College.

Fall 2015 **Budapest Semesters in Mathematics**, *Budapest, Hungary*.

Spring 2016 **Trinity College Dublin**, *Ireland*.

Teaching Experience

Fall 2020 **Matrix Methods and Applications Teaching Assistant**, *University of Colorado Boulder*.

Fall 2017 & 2018 **Differential Equations Teaching Assistant**, *University of Colorado Boulder*.

Fall 2016 **Microeconomics Teaching Assistant**, *Trinity College Economics Department*.

Fall 2016 **Student Tutor**, *Trinity College Quantitative Center*.

2014, 2015 **Teaching Assistant Calculus I and II**, *Trinity College Mathematics Department*.

Presentations

June 2020, March 2021 **Hive geometry shapes social information transfer in honeybee colonies**.
SIAM Conference on Life Sciences (Virtual)
SIAM Front Range Applied Mathematics Student Conference FRAMSC (virtual)

May 2019, Sept 2019 **Social inhibition maintains adaptivity and consensus of honey bees foraging in dynamic environments**.
Poster at SIAM Applications of Dynamical Systems, Snowbird
Mini-symposium, SIAM Northern States Annual Meeting, Wyoming

August 2018 **Optimizing flexibility in the collective decisions of honeybees**.
Mini-symposium, SIAM Life Science, Minnesota
Invited speakers Session, Mathfest, Denver

August 2016 **Modeling Influenza on a college campus using graphs of Social Networks**.
Pi Mu Epsilon Student Paper Sessions, Mathfest, Columbus
Undergraduate Capstone Conference, Mathematics Biosciences Institute, Ohio State University

Publications

(submitted to JOMB) 2020 Bidari, Subekshya, and Zachary P. Kilpatrick. *"Hive geometry shapes the recruitment rate of honeybee colonies."* arXiv preprint arXiv:2012.00157 (2020).

2019 Bidari, Subekshya, Orit Peleg, and Zachary P. Kilpatrick. *"Social inhibition maintains adaptivity and consensus of foraging honeybee swarms in dynamic environments."* Royal Society open science 6.12 (2019): 191681.

2019 Bidari, Subekshya, and Eli E. Goldwyn. *"Stochastic models of influenza outbreaks on a college campus."* Letters in Biomathematics(2019): 1-14.

2016 Bidari, Subekshya, et al. *"Solvability of implicit final size equations for SIR epidemic model."* Mathematical biosciences 282 (2016): 181-190.

Fellowships and Awards

2020-2021 **German Academic Exchange Service (DAAD) Short Term Research Grant**, *€6525*.

2019-2020 **AAUW International Doctoral Fellowship**, *$ 20,000*.

2017 **W.H. Russell Fellowship, Trinity College**, *$ 7,500*.

Professional Memberships

Association of Women in Mathematics

Society of Applied and Industrial Mathematics