

CURRENT POSITION

Georgia Institute of Technology

Atlanta, GA, USA

Postdoctoral Fellow, Earth and Atmospheric Sciences, Advisor: Prof Annalisa Bracco

2023–Current

- Focus: “Internal waves around seamounts”

EDUCATION

University of New Hampshire (UNH)

Durham, NH, USA

Ph.D. in Applied Mathematics, Advisor: Prof John F Gibson

2018–2023

- Thesis: “Symmetries, Bifurcations and Transition to Turbulence”

Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR)

Bengaluru, India

M.S. in Engineering Mechanics, Advisor: Prof M Alam

2015–2018

- Thesis: “Pattern Formation and Anomalous Modes in Axisymmetric Compressible Taylor-Couette Flow”

Birla Institute of Technology and Science (BITS) Pilani

Pilani, India

B.E.(Hons.) in Mechanical Engineering

2011–2015

- Thesis: “Investigation of Turing Patterns Using Finite Element Method and Symmetry”

PUBLICATIONS

- [1] **P. Aghor** and J. F. Gibson, “Invariant symmetric subspaces of plane Poiseuille flow”, *under prep.*, vol. ??, 2024.
- [2] **P. Aghor**, M. McKinley, and A. Bracco, “Internal waves around New England seamounts”, *under prep.*, vol. ??, 2024.
- [3] **P. Aghor** and M. Atif, “Effect of outer cylinder rotation on the radially heated Taylor-Couette flow”, *Physics of Fluids*, vol. 35, no. 9, 2023.
- [4] **P. Aghor** and M. Alam, “Nonlinear axisymmetric Taylor-Couette flow in a dilute gas: Multiroll transition and the role of compressibility”, *Journal of Fluid Mechanics*, vol. 909, 2021.

TEACHING

- **Teaching Assistant** at UNH 2018 –2019, 2021–2022
Linearity (covers ODE's, linear algebra, phase plane analysis), Multidimensional Calculus
- **Teaching Assistant** at BITS Pilani 2015
Finite Element Method (ME G512)

SCHOLARSHIPS AND AWARDS

- **Department of Mathematics and Statistics Teaching Assistant Award, UNH** 2022–2023
- **Dissertation Year Fellowship, UNH Graduate School Award** 2022–2023
- **Departmental Nominee, Graduate School TA Teaching Award** 2021–2022, 2022–2023

CONFERENCES, WORKSHOPS, SUMMER SCHOOLS

Dynamics days US 2023

Jan 2023

Online

- Poster presentation titled: ‘Codimension-two bifurcation in plane Couette flow’

Boulder Summer School - Hydrodynamics Across Scales

Jul 2022

University of Colorado

Boulder, Colorado, USA

- Poster presentation titled: ‘Invariant Subspaces of Channel Flow’

APS-DFD Meeting

Nov 2021

Phoenix Convention Center

Phoenix, Arizona, USA

- Gave a talk on ‘Exploring Invariant Symmetry Subspaces of Channel Flow’

School on Dynamics of Complex Systems

May-Jun 2016

International Center for Theoretical Sciences (ICTS, Bangalore)

Bengaluru, Karnataka, India

- Theme - Geophysical Fluid Dynamics

CIMPA Summer School on Current Research in Finite Element Method

Jun-Jul 2015

Indian Institute of Technology (IIT, Bombay)

Mumbai, Maharashtra, India

- Conducted tutorial sessions on FreeFem++

Finite Element Meet 2014

Dec 2014

Tata Institute of Fundamental Research (TIFR-CAM)

Bengaluru, Karnataka, India

- Gave a talk on ‘Numerical Continuation and Bifurcation in Presence of Symmetry in FreeFem++’

EXTRACURRICULAR ACTIVITIES (SPORTS, WRITING AND OUTREACH)

• BITS Pilani University Taekwondo Team

2014–2015

Gold Medal in BOSM 2015, Bronze Medal in BOSM 2014

• Wrote a Ted-Ed Script - The greatest mathematician that never lived

Jul 2020

[*Video, Transcript*](#)

• Wrote an article for **Loksatta**, a state-wide prominent Marathi language Newspaper about **Black Lives Matter Protests and Stripping the Pride off Columbus**

Jun 2020

[*Link*](#)

• Wrote an article for **Loksatta**, a state-wide prominent Marathi language Newspaper about the **SIR Model of Epidemiology**

Apr 2020

[*Link*](#)

• Volunteer at the Student Mentoring Program at JNCASR

2017, 2018

Taught 11th – 12th standard physics and mathematics to economically backward students.

REFERENCES:

1. Prof. John F. Gibson (john.gibson@unh.edu)
2. Prof. Gregory P. Chini (greg.chini@unh.edu)

3. Prof. Annalisa Bracco (annalisa@eas.gatech.edu)
4. Prof. Meheboob Alam (meheboob@jncasr.ac.in)