PROFILE

I work at the interface of experimental biology and mathematics. I study emergent and dynamical phenomena in Biology, using the concepts of Dynamical Systems and Statistical Physics. Currently, I am working on cell-cell interactions, molecular networks, and cellular state change problems. I have experience in recombinant gene products. I have developed software for data analysis in Biology. Have developed and taught courses on Systems Biology, Bioinformatics, and Data Analysis.

Cycloholic, Bookworm & Birder.

AREAS OF INTERESTS

Complex Systems
Systems Biology
Mathematical Biology
Dynamical Systems
Statistical Physics in Biology

PROFESSIONAL DETAILS

https://bit.ly/3gqyDgl

CONTACT

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BIPLAB BOSE

Associate Professor,
Dept. Biosciences & Bioengineering, Mehta Family School of Data Science and Artificial Intelligence, IIT Guwahati

EDUCATION

Ph. D (Biochemistry)
All India Institute of Medical Sciences, New Delhi
2005

M. Pharm (Pharmaceutical Engineering)
Jadavpur University, Kolkata
1998

B. Pharm
Jadavpur University, Kolkata
1996

WORK EXPERIENCE

Assistant Prof., Dept. of Biosciences & Bioengineering, IIT Guwahati
2006–2014

Lecturer, Biological Sciences, BITS Pilani
2005–2006

RECENT PUBLICATIONS

1. Devaraj V., Bose B. DEBay: A computational tool for deconvolution of quantitative PCR data for estimation of cell type-specific gene expression in a mixed population. **Heliyon**, 2020, 6 (7), e04489.

2. Chandrasekaran K., Bose B. Percolation in a reduced equilibrium model of planar cell polarity. **Physical Review E**, 2019, 100 (3), 032408.

3. Devaraj V., Bose B, Morphological State Transition Dynamics in EGF-Induced Epithelial to Mesenchymal Transition. **Journal of Clinical Medicine**, 2019, 8 (7), 911.

Google Scholar: https://bit.ly/3J8u4Dx

SOFTWARE

FlowPy: Software for Flow Cytometry data analysis
CoreNetMap: Software for gene expression correlation analysis

MOOC

Dynamical Models in Biology: YouTube - https://bit.ly/3uMGJID
Data Analysis for Biologists: YouTube - https://bit.ly/3HCtT3c