

THE SEVENTH
JYOTIPRASAD MEDHI MEMORIAL
ANNUAL LECTURE



5:30 PM, 8TH NOVEMBER, 2024

LECTURE HALL 2, IIT GUWAHATI

SPEAKER

Dr. Riddhipratim Basu
International Centre for Theoretical Sciences,
Bangalore

Organized by
Department of Mathematics
Indian Institute of Technology Guwahati

Dr. Jyotiprasad Medhi (1925–2017) was undoubtedly the finest Mathematician and Statistician the northeast region of the country has ever produced. We are glad to institute an annual lecture in the fond memory of the worldwide acclaimed scholar and writer.

About the talk:

The seventh *Jyotiprasad Medhi Memorial Annual Lecture* will be delivered by **Dr. Riddhipratim Basu** from International Centre for Theoretical Sciences, Bangalore. Dr. Basu's research interests include first and last passage percolation, interacting particle systems and large deviations. He is a recipient of the INSA Medal for Young Scientists (2020) and NASI Platinum Jubilee Young Scientist Award (2021).

Title: Planar random growth: Models, conjectures and results

Abstract: A large class of planar random growth models, whose large-scale behaviour empirically match that of many naturally occurring growth processes, are believed to share the features of the so-called Kardar-Parisi-Zhang (KPZ) universality class. These models have been the subject of an intense investigation over the last few decades both in statistical physics and in probability theory. Although precise predictions are available from the physics literature, those have so far only been rigorously proven in a handful of "exactly solvable" cases, and the predicted universal behaviour has remained out of reach. I shall describe a few of these models and some of the major open problems in the area. I shall also discuss a bit of what is known including some recent results in a class of models beyond the exactly solvable regime.

The Department of Mathematics, IIT Guwahati, cordially invites you to the seventh *Jyotiprasad Medhi Memorial Annual Lecture*.

Subhamay Saha
Coordinator

Prof. Srinivasan Natesan
Head, Dept. of Mathematics

Phone: +91-361-258 2650 (Off.)
Web: <http://www.iitg.ac.in/math/>