



**S N BOSE NATIONAL CENTRE  
FOR BASIC SCIENCES**

*Block JD, Sector III, Salt Lake, Kolkata 700 106*

## **DEPARTMENTAL SEMINAR**

# **Theoretical Sciences**

**20<sup>th</sup> JUNE, 2022**

**4.00PM**

**ONLINE / FERMION**

### **SPEAKER**



**Dr. GOURAB GHOSAL,**  
**Associate Professor, Physics & Astronomy**  
**University of Rochester**

### **TITLE OF THE TALK**

# **A Physics Approach to Study Urban Systems**

### **ABSTRACT**

Most things in the world are made up of systems of interacting parts, such that their global behavior is greater than the sum of their constituents. Such systems are often referred to as Complex Systems, with their defining features being the fact that they form Complex Networks and that their components interact in a non-linear fashion. Examples of Complex Systems are the human brain, financial markets, social media, infrastructural entities such as the internet, knowledge networks like the world wide web and indeed any socio-economic construct. A particularly important exemplar are cities, that encompass many of the systems listed above. In this talk I will provide a brief intro to the tools and techniques that physicists use to study complex systems and how its use in understanding urbanization has led to exciting new developments and insights.

### **HOST FACULTY**

**Prof. Punyabrata Pradhan and Prof. S. S. Manna**

**DEPT. OF THEORETICAL SCIENCES**

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