Science at the Sabha 2019

Sunday, 24 Feb 2019 4:00 - 7:30 pm TTK Auditorium, The Music Academy

TALKS ON SCIENCE FOR THE GENERAL PUBLIC

TRAFFIC RULES IN NEURONS

Sandhya Koushika

Tata Institute of Fundamental Research, Mumbai

Neurons are long cells within which many different types of cargo move. Remarkably, traffic movement on man-made roads, the movement of ants, and cargo transport in neurons all appear to share important features. I'll explore the significance of this finding.

UNTWISTING TWISTED MATTER

Vijay Shenoy

Indian Institute of Science, Bengaluru

Behind the many wonderful devices such as your cell phone are the materials that make them up. These materials owe many of their properties to the different ways in which their electrons organize themselves. I will explore what electrons can do collectively, leading up to the recent discovery of materials with "an electronic twist".

THINKING ECOLOGICALLY ABOUT OUR URBAN FUTURE

Harini Nagendra

Azim Premji University, Bengaluru

India's cities are on a breakneck path to growth. Cities are engines of prosperity and promise, but also concentrations of pollution, stress, and disease. Episodes of flood, drought, heat waves, and smog tell us why we must begin to think ecologically about our urban future in cities like Chennai.

THE WHOLE IS MORE THAN THE SUM OF ITS PARTS

Sitabhra Sinha

The Institute of Mathematical Sciences, Chennai

What is common to the power-grid, stock markets, lynch mobs, and the human brain? They are all complex systems made up of many parts. Knowing how each part of a complex system works is not enough to tell us how the whole will behave. We will explore the "emergence" of such unexpected behaviour which is a feature of all complex systems.

No special knowledge of science is necessary to appreciate the talks. Participation is by online registration only, which is free and open to all. For more information and to register, visit **www.imsc.res.in/triveni**