



# Einstein lectures

PUBLIC LECTURE SERIES CELEBRATING THE CENTENARY OF  
ALBERT EINSTEIN'S GENERAL THEORY OF RELATIVITY

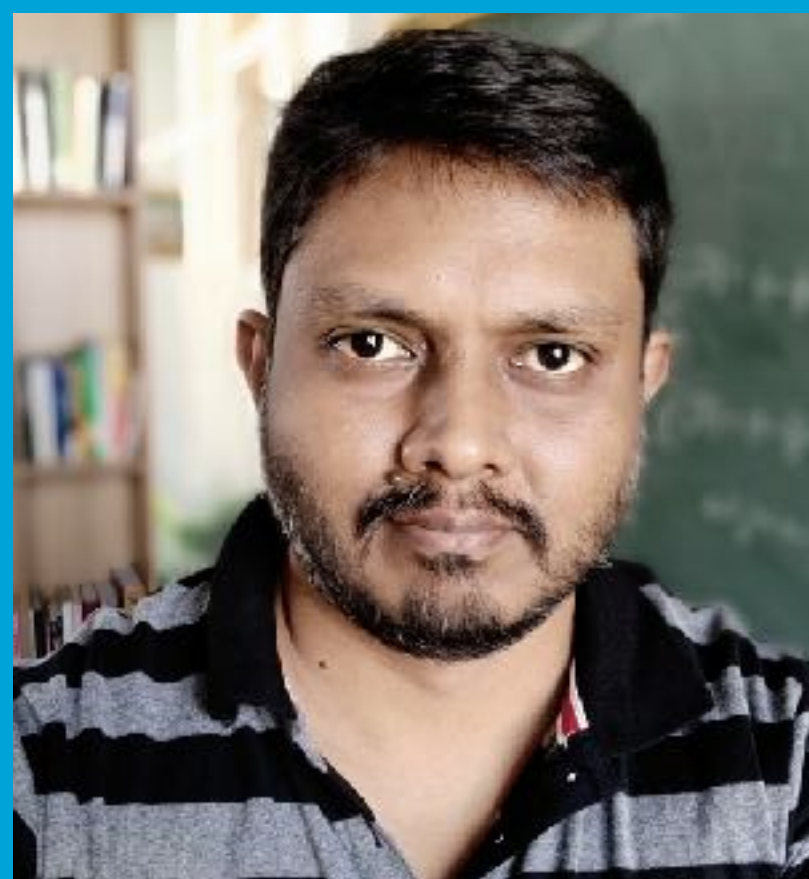
Einstein lecture by

## Vijaykumar Krishnamurthy

*ICTS-TIFR, Bengaluru*

### Physics of Life

Is there a [theoretical] physics of life? Living systems are possibly the most complex forms of matter known to us. As such, developing mathematical frameworks to explain the processes of life is a daunting task, requiring expertise in multiple disciplines. However, as biological experiments become more quantitative in nature, it is inevitable that we will need a theoretical physics of life, and a revolution of this kind is currently underway. In this talk, we will provide a broad picture of living systems from the perspective of soft condensed matter physics, with a focus on the complexities inherent in such a description. In particular, we will focus on the fascinating morphogenetic patterns seen in cells and tissues, and discuss the physics underlying these emergent self-organization phenomena. The aim will be to provide a glimpse of the fascinating physics found in living systems, and to invite talented students to take up research in this challenging area.



Vijay studied for BSc in M.E.S. College, Bengaluru, and obtained a Ph.D. in physics from the Indian Institute of Science (IISc), spent a couple of years as a postdoc at the Max-Planck-Institutes for the Physics of Complex Systems and Molecular Cell Biology & Genetics in Germany, and returned to India a few years ago to join the faculty of the International Centre for Theoretical Sciences (ICTS-TIFR). He never liked biology in school and left it as soon as he possibly could. The non-formal science education programs at the J N Planetarium in Bengaluru strengthened his foundations in physics and mathematics during his undergraduate days. A Ph.D. in soft condensed matter physics naturally led to asking questions on the physics of life, which he is pursuing at ICTS and plans to do so for the foreseeable future.

**Saturday, 21 November, 11 am (Online)**

