

ICTS Monthly Colloquium

Title : From Microscopies to Phenomenology: Geometric models for cell fate specification

Speaker : Archishman Raju (NCBS- TIFR, Bengaluru)

Date : Monday, September 27, 2021

Time : 3:30 pm (IST)

Abstract: Microscopic models of cell fate specification in developing embryos attempt to create a detailed description of gene regulatory networks leading to models with a high number of parameters. An alternative approach is to utilize Conrad Waddington's metaphor of flow through a landscape in which valleys represent alternative fates. We will show how this metaphor can be converted into a mathematical description which allows the construction of geometric models offering a parsimonious representation of the data. This also unifies several different standard models for spatial pattern formation. We will show the application of such geometric models to examples and finally remark on the possible universality of such descriptions.

Venue : Please click on the below link to join meeting

<https://us06web.zoom.us/j/82696470153?pwd=SVJuVVBvT2hGUjNINkVtTlFjK1Fxdz09>

Meeting ID: 826 9647 0153

Passcode: 588010