

ICTS Colloquium

Title : Constructing a brain: structures and circuits

Speaker : Shubha Tole, Tata Institute of Fundamental Research, Mumbai

Date : Monday, January 29, 2018

Time : 3:00 PM

Venue : Emmy Noether Seminar Room, ICTS Campus, Bangalore

Abstract : How do we know what the world around us is like? The world we know is “constructed” in our brains using information gathered by our five senses. Proper functioning of this system requires that each brain structure is formed in its correct location during embryonic development, and that the growth of nerve connectivity to and from each structure is properly orchestrated. This is an engineering problem that is posed and solved in a biological system, and executed in each embryo of every species. We will examine how brain structures and circuits are created in the developing mouse embryo as a model, by perturbing the system and drawing insights from the resulting defects.

I will present this work in a manner accessible to a wide non-specialist audience, and also bring out the approaches and techniques used to explore the early development of the brain.