



Multiscale modeling with MOOSE

25th - 26th September 2025

Seminar Hall, 2nd Floor, CHINTA (TCG CREST)

<https://mooseneuro.github.io/workshops/>

Time	Session Title	Speaker(s)
	Day 1 – Thursday, 25th September 2025	
09:00–09:30	Registration	
09:30–09:35	Welcome Note	Dr. Subhasis Ray (CHINTA)
09:35–10:30	Computation in Neuroscience (Lecture)	Prof. Sumantra Chattarji (Director, CHINTA)
10:30–11:30	Introduction to Neurophysiology (Lecture)	Prof. Upinder Bhalla (Distinguished Professor, NCBS-TIFR)
11:30–12:00	Coffee Break	
12:00–13:00	MOOSE Installation and Setup	Dr. Subhasis Ray, Dr. Bhanu Priya S (Azim Premji University)
13:00–14:00	Lunch Break	
14:00–15:15	Biophysical Neuron Models (Hands-on)	Dr. Subhasis Ray
15:15–15:30	Coffee Break	
15:30–16:45	Simplified Neuron Models (Hands-on)	Dr. Bhanu Priya S
16:45–17:00	Coffee Break	
17:00–18:00	Synapses, Plasticity, and Memory (Lecture)	Dr. Anant Jain (CHINTA)

	Day 2 – Friday, 26th September 2025	
09:00–10:30	Synapses and Plasticity (Hands-on)	Dr. Subhasis Ray, Dr. Bhanu Priya S
10:30–11:30	Signaling Pathways in Neurons (Lecture)	Prof. Upinder Bhalla
11:30–12:00	Coffee Break	
12:00–13:00	Modeling Synaptic and Intracellular Signaling (Hands-on)	Prof. Upinder Bhalla
13:00–14:00	Lunch Break	
14:00–15:00	Advanced Neuronal Modeling using Python Scripting (Hands-on)	Dr. Subhasis Ray
15:00–15:15	Coffee Break	
15:15–16:30	Introduction to Multiscale Modeling (Hands-on)	Prof. Upinder Bhalla
16:30–17:30	Group Photo-session, High Tea and Discussions	