ATUL TANAJI MOHITE

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EDUCATION

Ludwig Maximilian University, Munich *October 2017 - April 2020*
Master of Science in Physics GPA: 1.3

Indian Institute of Technology, Delhi *July 2013 - May 2017*
Bachelor of Technology in Engineering Physics DGPA: 7.913 / 10
Department of Physics

RESEARCH INTERESTS

I am interested in non-linear and non-equilibrium phenomena in physics. This includes a wide range of problems in theoretical biophysics and statistical physics. My main focus lies in active matter dynamics and coarsening dynamics in a biological context. The research topics I would primarily like to work on are non-linear dynamics, stochastic processes, information theory, soft condensed matter, and non-equilibrium thermodynamics.

PROJECTS

Master's Thesis - Mechanochemical co-operativity and pattern formation
The main aim of the project was to build a model based on mechanochemical coupling of proteins on a membrane. For two protein species, one can extract kinetic activation and deactivation rates. The simulation of a reaction-diffusion model led to the formation of patterns.

PUBLICATIONS

Atul Tanaji Mohite, A. Goychuk and E. Frey, Mechanochemical co-operativity and pattern formation in two protein species (manuscript in preparation)
Atul Tanaji Mohite, A. Goychuk and E. Frey, Membrane mediated protein conformation change leads to arrested phase separation in mechanochemically co-operating two protein species (manuscript in preparation)

SCHOLASTIC ACHIEVEMENTS

IIT-Joint Entrance Examination 2012-13
Secured All India Rank 1474 in IIT-JEE 2012-13

Indian Physics Olympiad (IPhO)
Selected in top 300 students in India, 2012-13

Middle-school Aptitude and Maths test, 2007-08
Awarded 17th rank in Maharashtra state of India with a percentile score of 99.99, 2007-08.

WORK EXPERIENCE

Max Planck Institute for Neurobiology, Martiensried *Dec 2018 - March 2020*
Contributed to a team of students for maintenance of SyConn. SyConn is aimed to automate synaptic connectivity inference for volume electron microscopy.

TEACHING EXPERIENCE

Ludwig Maximilian University, Munich *Nov 2018 - Feb 2019*
Calculation methods for Physics and Mathematics, Winter semester 2018

INTERNSHIPS

TIFR-Mumbai *May 2015 - July 2015*
Conducted experiments and examined polarization dependence of dielectric metastructures

Leiden University, Netherlands *May 2016 - July 2016*
Implemented experimental setup for a tomography technique of NbN superconducting multiphoton detectors and analyzed data for it.

TECHNICAL SKILLS

Programming Languages	C++, Java, Python
Modeling and Analysis	COMSOL, Mathematica
Software & Tools	Latex

LANGUAGES

Marathi	Mother tongue
Hindi	Fluent
English	Fluent
German	Proficiency B1

EXTRA-CIRRICULAR INVOLVEMENT

National Service Scheme-IIT Delhi, Volunteered for long term project NSS-Medicine Baba, Born-to-Blossom and Cloth & relief fund collection drives *July 2013 - May 2017*

Part of IIT-Delhi Fine Arts & Crafts club *July 2013 - May 2017*

HOBBY AND INTERESTS

As a hobby, I like to paint and sketch. I enjoy reading novels and poetry. I admire the works of Bhalachandra Nemade and Tukaram.