ATUL TANAJI MOHITE

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EDUCATION

University of Luxembourg *Nov 2020 - Now*
PhD student in group of Prof. Dr. Etienne Fodor

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

Indian Institute of Technology, Delhi *Jul 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 and coarsening phenomena 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)

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 - Mar 2020*
Contributed to a team of students for maintenance of SyConn. SyConn is aimed to automate synaptic connectivity inference for volume electron microscopy.

SUMMER SCHOOLS

Physics of Life Summer School , Edinburgh	*Apr 2022*
Outstanding Challenges in Nonlinear Dynamics, Les Houches	*Mar 2022*
International Summer School FPSP XV, Bruneck	*Jul 2021*
The Beg Rohu Summer School, Quiborn	*Jun 2021*
Arnold Sommerfeld School - Physics of Life, LMU Munich	*Oct 2019*

CONFERENCES

Journees de Physique Statistique, Paris	*Jan 2022*
Inhomogeneous Random Systems, Paris	*Jan 2022*
CeNS/CRC235 Workshop "Evolving Nanosciences"	*Sep 2019*
MECO44, Key Challenges in Statistical Physics, Kloster Seeon	*May 2019*

TEACHING EXPERIENCE

University of Luxembourg   *Feb 2022 - Jul 2022*
Non-equilibrium statistical physics, Summer semester 2022
University of Luxembourg   *Sep 2021 - Dec 2021*
Calculation methods for Physics and Mathematics, Winter semester 2021
Ludwig Maximilian University, Munich   *Nov 2018 - Feb 2019*
Calculation methods for Physics and Mathematics, Winter semester 2018

INTERNSHIPS

Leiden University, Netherlands   *May 2016 - Jul 2016*
Implemented experimental setup for a tomography technique of NbN superconducting multiphoton detectors and analyzed data for it.
TIFR-Mumbai   *May 2015 - Jul 2015*
Conducted experiments and examined polarization dependence of dielectric metastructures

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   *Jul 2013 - May 2017*

Part of IIT-Delhi Fine Arts & Crafts club   *Jul 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.