Dr. Amit Kumar Bhattacharjee

CONTACT Information Department of Physics, Tel: +91 (033) 2455-4504Asutosh College, Fax: +91 (033) 248-3006

92 S.P.Mukherjee Road, E-mail: a.k.bhattacharjee@gmail.com

Kolkata 700 026, India. Home: https://amitbny.github.io/akb.github.io

EDUCATION

- ♣ Ph.D. (Theoretical Physics), Institute of Mathematical Sciences, Chennai, India ('04-'10) [Registered: 01/09/06, Submitted: 28/02/10, Defended: 05/12/11, Awarded: 15/02/13].
- ♣ M.Sc. (Physics), Indian Institute of Technology, Kharagpur, India ('02-'04).
- ♣ B.Sc. (Physics Honours), B.B. College, University of Burdwan, India ('99-'02).
- ♣ Xth & XIIth, DVC HS School, **W.B.B.S.E.** & **W.B.C.H.S.E.**, India ('97,'99).

APPOINTMENT

- Assistant Professor, Asutosh College, Kolkata, India ('17 onwards).
- DST-INSPIRE Faculty, Asutosh College, Kolkata ('17-'20) & Indian Institute of Science, Bangalore, India ('15-'17).
- Visiting Researcher, Institute of Mathematical Sciences, Chennai, India ('15, 3 months).
- Assistant Researcher in Applied Mathematics, Courant Institute, New York, USA ('13-'15).
- Helmholtz-University Young Investigator, University of Konstanz, Germany ('12-'13).
- DLR-DAAD Post Doctoral Fellow, German Aerospace Center Köln, Germany ('10-'12).

Professional Courses

- \$\psi\$ 1st Online Refresher Course in Physics, **HRDC**, **Gujarat University**, Ahmedabad (7th 20th September, 2020).

Honours & Awards

- § Ranked 6th in *College Service Examination*, West Bengal State ('17).
- § Work featured in NewsRX (Science Letter) stating "Researchers from IISc report findings in Science" ('17),
- § Awarded **DST-INSPIRE Faculty** from INSA-DST, Govt. of India ('15-'20).
- § Work selected for "Francois Naftali Frenkiel Award" by *Physics of Fluids* ('15) & featured in *Phys.org* highlighting "Mathematicians model fluids at the mesoscale".
- § Research Scientist, Courant Institute of Math. Sciences, New York University, USA ('13).
- § Work selected for "Special Topics in Glass Transition" issue by J. Chem. Phys. ('13).
- § Helmholtz-University Young Investigator at University of Konstanz, Germany ('12).
- § *DLR-DAAD* award from German Aerospace Centre Köln, Germany ('10).
- § Ranked 128th in **Joint Entrance Screening Test** [JEST] ('04).
- § Ranked 117th (95.79%) in *Graduate Aptitude Test in Engineering* [GATE] ('04).
- § Awarded CSIR-JRF & LS in Joint CSIR-UGC JRF (NET) & LS, Govt. of India ('04).
- § DST-Summer Research fellow at SN Bose National Centre for Basic Science, India ('03).
- § National Scholarship from Department of Education, Govt. of India ('03).
- § Ranked 6^{th} in **Admission Test for M.Sc.**, IIT Kharagpur ('02).
- § "University Silver Medal", B.Sc. 2nd rank in University of Burdwan, India ('02).
- § DVC 1^{st} prize for performance in XII^{th} Board Examination, WBCHSE, India ('99).
- § DVC 2^{nd} prize for **outstanding** performance in X^{th} Board Examination, **WBBSE**, India ('97).

RESEARCH EXPERTISE Soft Condensed Matter Theory & Computation: (a) <u>Field theoretic methods</u> (µm-m,µs-hr): (i) Fluctuating hydrodynamics with Projection methods, (ii) hybrid Lattice-Boltzmann method, (iii) Landau-de Gennes energy landscape method, (b) <u>Particle based methods</u> (pm-nm,ps-ns): (iv) Molecular dynamics simulation, (v) Kinetic monte carlo methods, (c) <u>Multiscale methods</u>: (vi) Dissipative particle dynamics simulations, (vii) High performance computation (HPC).

PEER REVIEWED
PUBLICATIONS [
h-index: 7,
Citations: 199,
Scopus ID:
56556042400,
ORCID ID: 00000002-1475-743X,
Web of Science:
AAB-1030-2020]

LIQUID CRYSTALS:

- √ A.K. Bhattacharjee. Controlling motile disclinations in a thick nematogenic material with an electric field,

 Nature (Scientific Reports), 8, 2517 (2018),

 [citation:1, pages:18, ISSN:2045-2322, IF:4.379].
- ✓ A.K. Bhattacharjee. Stochastic kinetics reveal imperative role of anisotropic interfacial tension to determine morphology and evolution of nucleated droplets in nematogenic films, Nature (Scientific Reports)
 7, 40059 (2017), (Highlighted in "Review Article" & featured in "NewsRX (Science Letter)"), [citation:6, pages:17, ISSN:2045-2322, IF:4.379].
- √ A.K. Bhattacharjee. Inhmogeneous Phenomena in Nematic Liquid Crystals,

 Homi Bhabha National Institute (2013), [citation:4, pages:124, PhD Thesis].
- √ A.K. Bhattacharjee, Gautam I. Menon and R. Adhikari. Fluctuating dynamics of nematic liquid crystals using the stochastic method of lines, <u>J. Chem. Phys.</u> 133, 044112 (2010), [citation:24, pages:7, ISSN:1089-7690, IF:3.48].
- √ S.M. Kamil, A.K. Bhattacharjee, R. Adhikari and Gautam I. Menon. The isotropic-nematic interface with an oblique anchoring condition, <u>J. Chem. Phys.</u> 131, 174701 (2009), [citation:9, pages:10, ISSN:1089-7690, IF:3.48].
- √ S.M. Kamil, **A.K. Bhattacharjee**, R. Adhikari and Gautam I. Menon. Biaxiality at the isotropic nematic interface with planar anchoring, <u>Phys. Rev. E</u> 80, 041705 (2009), [citation:13, pages:5, ISSN:2470-0053, IF:2.529].
- √ A.K. Bhattacharjee, Gautam I. Menon and R. Adhikari. Numerical method of lines for the relaxational dynamics of nematic liquid crystals,

 Phys. Rev. E 78, 026707 (2008),

 [citation:32, pages:10, ISSN:2470-0053, IF:2.529].

COLLOIDAL GLASS:

- √ A.K. Bhattacharjee. Stress-structure relation in dense colloidal melt under forward and instantaneous reversal of shear.

 Soft Matter (Royal Society of Chemistry), 11, 5697 (2015), [citation:3, pages:8, ISSN:1744-6848, IF:3.399].
- √ F. Frahsa, A.K. Bhattacharjee, J. Horbach, M. Fuchs and Th. Voigtmann. On the Bauschinger effect in supercooled melts under shear: results from MCT and molecular dynamics simulation, J. Chem. Phys. 138, 12A513 (2013), (Appeared in "Special Topics in Glass Transition"), [citation:26, pages:14, ISSN:1089-7690, IF:3.48].

LIQUIDS & GASES:

- √ A.K. Bhattacharjee, K. Balakrishnan, A. L. Garcia, J.B. Bell and A. Donev. Fluctuating hydrodynamics of multispecies reactive mixtures.

 J. Chem. Phys., 142, 224107 (2015), [citation: 46, pages: 22, ISSN: 1089-7690, IF: 3.48].
- √ A. Donev, A.J. Nonaka, **A. K. Bhattacharjee**, A. L. Garcia and J. B. Bell. Low Mach Number Fluctuating Hydrodynamics of Multispecies Liquid Mixtures. *Physics of Fluids* **27**, 037103 (2015), (Selected for "Francois Naftali Frenkiel Award" & featured in "Phys.org"), [citation:35, pages:35, ISSN:1089-7666, IF:3.521].

Book Contribution:

√ R. Ray, P. Rudra, A.K. Bhattacharjee, S. Chaudhuri, N. Mukherjee and S. Sen. Teaching-Learning during the Pandemic and After: A Multi-Disciplinary Approach. <u>SSRN</u> (2022),

- INVITED REVIEWER ¶ Journal reviewer: Soft Matter (RSC), Physical Review, Reviews of Modern Physics.
 - ¶ Proposal reviewer of Netherlands Organisation for Scientific Research (NWO).
 - ¶ Editor of Centurion Teachers Council Journal, Asutosh College, Kolkata, India.
 - ¶ Biographical interview by **Deutsche Welle** at DLR, Germany.

Teaching / Mentoring EXPERIENCE

(a) Asutosh College, Kolkata:

2022-23

- In Addition to 2021: "Certificate Course on LATEX".
- Year-III (PHSA) Computer Laboratory (in C) course is abolished.
- Sem-VI (PHSA): (i) Advanced Classical Dynamics, (ii) Advanced Statistical Mechanics, & (iii) Statistical Mechanics (Python).
- Sem-V (PHSA): (i) Laser & Fiber Optics (Holography & Nonlinear Optics), & (ii) Statistical Mechanics (Python).
- Sem-IV (PHSA): Mathematical Physics III: (i) Special Relativity & (ii) Python.
- Sem-III (PHSA): (i) Thermal Physics, (ii) Mathematical Physics II (Python) & (iii) Scientific Writing (LATEX).
- Sem-II (PHSA): Physical Optics (Diffraction & Waves).
- Sem-I (PHSA): Mechanics (Nonintertial Frame & Fluid Mechanics).
- \$\frac{1}{2} \text{Sem-V (PHSG)} : \text{Modern Physics (Special Relativity)}.
- \(\begin{align*} \text{Sem-IV (PHSG)} : \text{Physical Optics} \(\text{(Polarization & Diffraction)}. \)
- Sem-III (PHSG): Scientific Writing (LATEX).
- Year-III (PHSA): Computer Laboratory (in C). 2020
- Sem-V (PHSA): (i) Solid State Physics, (ii) Laser & Fiber Optics (Holography & Nonlinear Optics), & (iii) Quantum Mechanics (Python).
- Sem-IV (PHSA): Mathematical Physics III: (i) Special Relativity & (ii) Python.
- Sem-III (PHSA): (i) Thermal Physics & (ii) Mathematical Physics II (Python).
- Sem-II (PHSA) : Physical Optics (Diffraction).
- Sem-I (PHSA): Mechanics (Nonintertial Frame & Fluid Mechanics).
- \(\text{Sem-V (PHSG)}: \) \(\text{Modern Physics (Special Relativity)}.\)
- \$\frac{1}{2} \text{Sem-}I (PHSG) : Mechanics (Oscillations).
- Mentored U.G. student S.Paul (Asutosh College) in a project "Computational study of Conserved & Nonconserved Systems".

2019

- Year-III (PHSA): (i) Solid State Physics, & (ii) Computer Laboratory (in C).
- Sem-III (PHSA): (i) Thermal Physics & (ii) Mathematical Physics II (Python).
- Sem-II (PHSA): Physical Optics (Diffraction & Holography).
- Sem-I (PHSA): Mechanics (Nonintertial Frame & Fluid Mechanics).
- \(\text{Sem-II (PHSG)}: \) \(\text{Electrodynamics}\) (Induction & Maxwell's Equation).
- \$\textstyle \text{Sem-}I\text{ (PHSG)}: \textbf{Mechanics}\text{ (Oscillations & Elasticity).}\$ 2018
- Sem-II (PG) (ENVS) : Environment & Energy.
- Year-III (PHSA): (i) Solid State Physics, & (ii) Computer Laboratory (in C).
- Year-II (PHSA) : Thermal Physics II.
- Sem-I (PHSA): (i) Mechanics (Nonintertial Frame & Fluid Mechanics), & (ii) Mathematical Physics I (Python).
- Year-III (PHSG): (i) Computer Laboratory (in C) & (ii) Communication Theory.
- \(\begin{align*} \text{Sem-}I (PHSG) : \textbf{Mechanics} (Oscillations & Elasticity). \)

- Mentored Ph.D. student S. Anand (IISER Bhopal) in a project "Electrically Driven Droplets".
 2017
- Year-III (PHSA): (i) Solid State Physics, & (ii) Computer Laboratory (in C).
- Year-II (PHSA) : Thermal Physics II.
- Year-I (PHSA) : Thermal Physics I.
- \(\psi\) Year-III (PHSG): (i) Computer Laboratory (in C) & (ii) Communication Theory.
- \(\frac{1}{2}\) Year-I (PHSG): Mechanics (Waves & Oscillations).

(b) Indian Institute of Science, Bangalore:

2016

- Mentored a Ph.D. student (P.J.Bhuiyan) in a project "Emergent Structures in Colloidal Membranes" (Fall).
- Mentored a U.G. student (A.Shetty, IIT Bombay) in a project "Nematic Rheochaos in 2D" (Summer).

(c) Universität Konstanz, Konstanz:

2012

- Mentored M.Sc. student (M.Everts) towards "Ausarbeitung" in the course Materie und Ordnung (Spring).
- Bilingual Teaching Assistant/Grader (German & English) in the course Classical Field Theory (Fall).

EXAMINER/PAPER-SETTER/SCRUTINIER/ REVIEWER

(University of Calcutta)

[E: Examiner, S: Scrutinier,

R: Reviewer,

P: Paper-Setter,

M: Moderator,

 $\mathbf{HE} \colon \mathit{Head}\text{-}\mathit{Examiner},$

In: Internal,

Tu: Tutorial,
Th: Theory

 ${\it Examiner, Scrutinier, Head-Examiner, \ Paper-Setter \ (Theory)}$

2023

- Sem-VI (PHSA) : Paper-DSE A2(B) (Advanced Dynamics) $\{In, Tu, Th\} [E=16, S=3]$.
- Sem-V (PHSA): Paper-DSE A1(B) (Laser & Fiber Optics){In,Tu,Th}[E=33, S=31].
- Sem-III (PHSA) : Paper-CC6 (Thermal Physics) $\{In, Th\}$ [E=22, S=23].
- $\bullet \ \, \text{Sem-$III$ (PHSA): Paper-SEC A-1 (Scientific Writing (IAT_{E}X))$} \\ \{\text{In}, \text{Tu}, \text{Th}\} [\textbf{E}=22].$
- [M] Sem-III (PHSG): Paper-SEC A-1 (Scientific Writing (L⁴TEX)){In,Tu,Th}[HE, E=14].

 2022
 - Sem-VI (PHSA) : Paper-DSE A2(B) (Advanced Dynamics) $\{In, Tu, Th\}[E=18, S=10]$.
 - Sem-V (PHSA): Paper-CC12 (Solid State Physics) $\{In, Th\}[E=34, S=34]$.
 - Sem-V (PHSA) : Paper-DSE A1(B) (Laser & Fiber Optics) $\{In, Tu, Th\}[E=48, S=48]$.
 - Sem-IV (PHSA): Paper-CC8 (Mathematical Physics-III){In,Th}[E=42, S=42].
 - Sem-III (PHSA): Paper-CC6 (Thermal Physics) {In,Th}[E=46, S=46].
 - Sem-III (PHSA): Paper-SEC A-1 (Scientific Writing (IATEX)) [E=43].
- Sem-I (PHSA): Paper-CC2 (Mechanics) $\{In, Th\} [E=60, S=60]$.
- Year-III (PHSA): Paper-6 (Solid State Physics) [E=9, S=9].
- Year-I (PHSA) (1+1+1 System Syllabus 2010-11): Paper-I (Mathematical Physics).
- $$\bot$ Sem-V (PHSG) : Paper-DSE A(2) (Modern Physics){In,Th}[E=38, S=38].$
- $$\mathbb{E} = 142$].
- $$$ Sem-I (PHSG) : Paper-GE/CC1 (Mechanics){In,Th}[E=101, S=101].$
- ¶ Sem-* (PHSA) : Paper-CC*, Kazi Nazrul University [P].
- Sem-VI (PHSA) : Paper-DSE A2(B) (Advanced Dynamics) $\{In, Tu, Th\}[E=34, S=34]$.
- Sem-VI (PHSA): Paper-DSE B2(B) (Non-eq. Statistical Mechanics) $\{In, Tu, Th\} [E=34, S=34]$.
- Sem-IV (PHSA): Paper-CC8 (Mathematical Physics-III) [In,Th] [E=47, S=47].
- Sem-II (PHSA): Paper-CC4 (Waves & Optics) $\{In, Th\} [E=42, S=42]$.
- Year-III (PHSA): Paper-6 (Nuclear & Solid State Physics) [E=9, S=9].
- Sem-V (PHSA): Paper-DSE A1(B) (Laser & Fiber Optics) $\{In, Tu, Th\} [E=34, S=34]$.

```
• Sem-V (PHSA): Paper-CC12 (Solid State Physics) {In,Th} [E=34, S=34].
• Sem-III (PHSA): Paper-CC6 (Thermal Physics) [In,Th] [E=43, S=43].
• Sem-I (PHSA): Paper-CC2 (Mechanics) \{In, Th\} [E=xx, S=xx].
\ Sem-V (PHSG): Paper-DSE A(2) (Modern Physics) \{In, Th\} [E=46, S=46].
¶ Sem-* (PHSA) : Paper-CC*, Kazi Nazrul University [P].
• Year-III (PHSA): Paper-6 (Nuclear & Solid State Physics) [E=80, S=80].
• Sem-IV (PHSA): Paper-CC8 (Mathematical Physics-III) [In,Th] [E=34, S=34].
• Sem-III (PHSA): Paper-CC6 (Thermal Physics) {In,Th} [E=44, S=47].
• Sem-II (PHSA): Paper-CC4 (Waves & Optics) \{In, Th\} [E=48, S=48].
¼ Year-II (PHSG): Paper-IIIA (Optics Electronics, Modern Physics) [E=71, S=71].
  2019
h Year-I (PHSG): Paper-I (Math.Methods, Geom.Optics & Electronics) [E=20, S=20].
  Sem-II (PHSG): Paper-GE/CC2 (EM Theory) [E=11, S=16].
¶ Sem-II (\mathbf{PG}) (ENVS): Paper-ENVC-24 (Energy & Environment), University of Calcutta[\mathbf{E}=\mathbf{P}=25].
  Year-III (PHSA): Paper-VI (Nuclear & Solid State Physics) [E=33, S=37].
$\downarrow$ Year-III (PHSG): Paper-IVA (Thermodynamics, Electronics) [E=55, S=53].
$\frac{1}{2}$ Year-II (PHSG): Paper-IIIA (Optics, Electronics, Modern Physics) [$\mathbf{E}=44$, $\mathbf{S}=49$].
\(\text{\text{Y}}\) Year-III (PHSG): Paper-IVA (Thermodynamics, Electronics) [E=31, S=50].
Year-II (PHSG): Paper-IIIA (Optics, Electronics, Modern Physics) [E=50, S=71].
 Year-I (PHSG): Paper-I (Mechanics, GPM, Oscillations, Optics) [\mathbf{E}=67, \mathbf{S}=76].
  Internal, External \ Examiner \ {\it \& Scrutinier} \ (Computer)
  2023
• Sem-IV (PHSA): Paper-CC8 (Mathematical Physics-III)[E=xx].
• Sem-V (PHSA): Paper-CC12 (Jogamaya Devi College) (Statistical Mechanics)[E=47].
• Sem-III (PHSA): Paper-CC5 (Mathematical Physics-II)[E=27].
  2022
• Sem-IV (PHSA): Paper-CC8 (Jogamaya Devi College) (Mathematical Physics-III)[E=12].
• Sem-IV (PHSA): Paper-CC8 (Mathematical Physics-III) [E=42].
• Sem-VI (PHSA): Paper-CC12 (Statistical Mechanics)[E=48].
• Sem-III (PHSA): Paper-CC5 (Mathematical Physics-II)[E=43].
  2021
• Sem-VI (PHSA): Paper-CC14 (Statistical Mechanics)[E=34].
• Sem-IV (PHSA): Paper-CC8 (Mathematical Physics-III) [E=47].
• Sem-III (PHSA): Paper-CC5 (Mathematical Physics-II)[E=46].
• Year-III (PHSA): Paper-VIIIB (Computer Laboratory)(in C)[E=9].
  2020
• Sem-IV (PHSA): Paper-CC8 (Mathematical Physics-III) [E=34].
• Year-III (PHSA): Paper-VIIIB (Computer Laboratory)(in C)[E=80, S=80].
• Sem-I (PHSA): Paper-CC1 (Heritage College)[\mathbf{E}=19].
  2018
• Sem-I (PHSA): Paper-CC1 (Heritage College)[\mathbf{E}=19, \mathbf{S}=120].
  Internal, External Examiner & Scrutinier (Experiment)
```

• Sem-II (PHSA): Paper-CC3 (Jogamaya Devi College) (Electricity Magnetism) (2022) [E=12].

\$\text{Sem-}I\ (PHSG) : Paper-GE/CC1\ (2020)\ [E=96].

```
        \( \text{Year-}II \) (PHSG) : Paper-$IIIB \) (Optics Electronics, Modern Physics) (2020) [E=71].

        \( \text{Year-}II \) (PHSG) : Paper-$IIA \) (2019) [E=92].

        \( \text{Year-}III \) (PHSG) : Paper-$IIA \) (2018) [E=105].

        \( \text{Year-}III \) (PHSG) : Paper-$IVA \) (2017) [E=100].
```

INVITED SPEAKER

- ♠ Student's Week, Asutosh College, India (January 2022).
- Centre for Computational & Data Sciences, IIT Kharagpur, India (December 2018).
- ♠ Complex Fluids CompFlu-2017, IIT Madras, India (December 2017).
- ♠ Complex Fluids CompFlu-2016, IIIT Hyedarabad, India (December 2016).
- ♠ Institute Seminar, RRI Bangalore, India (September 2016).
- ♠ Theoretical Science Unit, JNCASR Bangalore, India (March 2016).
- ♠ Thematic Unit of Excellence in Computational Material Science, SNBNCBS Kolkata, India (January 2016).
- ♠ Department of Physics, IIT Delhi, India (January 2016).
- \spadesuit 3rd Soft Matter Young Investigator Meet, Pondicherry, India (December 2015).
- ♠ Journal Club, The Institute of Mathematical Sciences, Chennai, India (July 2015).
- ♠ Department of Physics, IISER Mohali, India (April 2015).
- ♠ School of Physical Sciences, JNU New Delhi, India (April 2015).
- ♠ Department of Physics, IISER Bhopal, India (April 2015).
- ♠ Workshop Bartholomäberg, Vorarlberg, Austria (August 2012).
- ♠ Konstanzer Kolloidal Klub, Universität Konstanz, Konstanz, Germany (June 2012).
- ♠ Fachbereich Physik, Universität Konstanz, Konstanz, Germany (February 2012).
- ♠ Institut für Theoretische Physik, Heinrich-Heine-Universität Düsseldorf, Germany (October 2011).
- ♠ Institut für Materialphysik im Weltraum, DLR Köln, Germany (April 2011).
- ♠ Journal Club, The Institute of Mathematical Sciences, Chennai, India (April 2009).
- ♠ Mahabaleswar Seminar on Modern Biology, TIFR, Mumbai, India (January 2008).

ATTENDED CONFERENCES/ WORKSHOPS / WEBINARS

- Two Day National Webinar on Fundamental Physics, Asutosh College Kolkata (4th-5thOctober, 2021).
- National Webinar on Emergent Phenomena: When More Is Different, Raja Peary Mohan College Hooghly (20th September, 2021).
- Six Day Workshop on Nonlinear Dynamics, Bangabasi College Kolkata (28th June 3rd July, 2021).
- One Day Webinar on Quantum mechanics with Python, Fakir Chand College Diamond Harbour $(2^{nd}July, 2021)$.
- Faculty Development Program on Quantum Mechanics in Python, Prabhu Jagatbandhu College Howrah (19th February, 2021).
- National Webinar on Some Selected Topics on DSE Physics Course Under CBCS, CU, Maulana Azad College Kolkata (23rd - 24th September, 2020).
- National Webinar on Fundamental Physics, Asutosh College Kolkata (27th 28th August, 2020).
- Web Based Workshop on Teaching Physics at the UG & PG Level using Python, Victoria Institution
 & UGC-DAE CSR Kolkata (6th 10th July, 2020).
- One Day Seminar-cum-Workshop on Python computing: Some Applications in Mathematical Physics,
 Basanti Devi College & Nabagram Hiralal Paul College Kolkata (28th February, 2020).
- Two Day Faculty Development Program on Python, Behala College Kolkata $(3^{rd} 4^{th} May, 2019)$.
- One Day Seminar on Basic Sciences, RSA-IACS & Asutosh College Kolkata (4th February, 2019).
- One Day Workshop on CBCS-Physics Syllabus, Bangabasi College Kolkata (7th May, 2018).
- One Day Seminar on Sister Nivedita, Asutosh College Kolkata (31th October, 2017).
- Indian Statistical Physics Community Meeting, ICTS Bangalore, India (2016).
- Growing Length Scale Phenomena, JNCASR Bangalore, India (2015).
- Kurt Binder honorary workshop, Johannes Gutenberg-Universität Mainz, Germany (2012).
- SimBioMa2011, Universität Konstanz, Konstanz, Germany (2011).
- School on Nonlinear Response to Vitrification, Universität Konstanz, Konstanz, Germany (2011).
- Glastag, Universität Marburg, Marburg, Germany (2011).
- 8th Liquid Matter Conference, Universität Wien, Vienna, Austria (2011).

- SERC School cum Symposium on Rheology of Complex Fluids, IIT Madras, India (2010).
- Disorder, Complexity & Biology II, BHU Varanasi, India (2009).
- The Interface of Life, IIT Madras, India (2008).
- School on Understanding Molecular Simulation, JNCASR Bangalore, India (2007).
- Assembly Organization & Propulsion in Complex Systems, IIT Madras, India (2007).
- SERC School on Nonlinear Dynamics & Pattern Formation, IACS Kolkata, India (2006).
- Common Trends in Traffic: Physical & Computational Models in Transportation Engineering & Biological Sciences, IIT Kanpur, India (2006).
- Discussion Meeting on Statistical Physics, Vardanahalli, India (2005).

STUDENT OUTREACH ACTIVITY

- © Judged & evaluated "Chhatra Yuba Bigyan Mela" at Beltala Girls High School, Kolkata (Sept '19).
- (c) Conducted Heat & Annual Sports "Krira", Asutosh College (Dec 2019, Jan 2019 & Feb 2018).
- © Seminar on "Computational Science" at PG Department of Physics, B.B.College, Asansol (Dec 2009).
- \bigcirc Question-Answer session with students of X^{th} std. at DVC High School, Maithan (April 2015).

ACTIVITY

- EXTRACURRICULAR(*) Visharad (5th year) on Hawaiian Guitar, Nikhil Bharat Sangeet Samiti, Kolkata, 1999.
 - (N) Visharad (5th year) in Art, Pracheen Kala Kendra, Chandigarh, 1999.
 - (M) Nature Photography & Birding.
 - (M) Travelogue.