

Delivered Scientific Talks

- "Non-universal tracer diffusion in crowded media", **Paris Stat Phys Meet 2015** (January 2015)
- "Effect of intrinsic curvature on semiflexible polymers", **IMSc**, Chennai, India. (April 2010)
- "Loop Formation Probability of Intrinsically Curved Polymers", **TIFR**, India. (June 2009)
- "Statistical Properties of Intrinsically Curved Polymers", **ICTP**, Trieste, Italy. (September 2008)

Technical Skills

- Programming Language: MatLab, Fortran 95, C, Linux Shell Script, Mathematica etc
- Tools: LaTeX, beamer, Gimp, XFig, Xmgrace, Gnuplot, VMD, PovRay etc
- Numerical technique used: Monte Carlo, PDEs, Transfer Matrix, Molecular Dynamics etc

List of Publications

1. "Anomalous tracer diffusion in heterogeneously crowded cell cytoplasm"
– Surya K. Ghosh, Andrey Cherstvy, D. Grebenkov, R. Metzler (To be submitted in New J. Phys.)
 2. "Orientation-dependent forces of rod-like particles on responsive hydrogel"
– Surya K. Ghosh, Andrey G. Cherstvy, Ralf Metzler (manuscript under preparation)
 3. "Shape transitions of intrinsically curved polymers subjected to compressive forces"
– Surya K. Ghosh, Mandar Inamder, Anirban Sain (manuscript under preparation)
 4. "Non-universal tracer diffusion in crowded media of non-inert obstacles"
– Surya K. Ghosh, Andrey G. Cherstvy, Ralf Metzler, Phys. Chem. Chem. Phys., **17**, 1847 (2015)
 5. "Deformation propagation in responsive polymer network films"
– Surya K. Ghosh, Andrey G. Cherstvy, Ralf Metzler, J. Chem. Phys. **141**, 074903 (2014)
 6. "Stretching force dependent transition in single strand DNA"
– Kulveer Singh, Surya K. Ghosh, Sanjay Kumar, Anirban Sain, Europhys. Lett. **100**, 68004 (2012)
 7. "From chemosensing in microorganisms to practical biosensors"
– Surya K. Ghosh, Tapanendu Kundu, Anirban Sain, Phys. Rev. E. **86**, 051910 (2012)
 8. "Effect of intrinsic curvature on semiflexible polymers"
– Surya K. Ghosh, Kulveer Singh, Anirban Sain, Phys. Rev. E. **80**, 051904 (2009) (Selected for the Nov 15th, 2009 issue of Virtual Journal of Biological Physics)
 9. "Statistical properties of curved polymers"
– Surya K. Ghosh, Anirban Sain, Pramana J. Phys. **71**, 385 (2008)
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