Dr. Lachit Saikia

Contact Department of Physics

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India

Date of birth 31 December, 1990

Education Ph.D. 2014 - 2019

Thesis title: Sculpting colloidal membranes through phase transformations

Thesis Advisor: Dr. Prema Sharma

Indian Institute of Science (IISc), Bangalore, India

M.Sc. Physics 2012 - 2014

M.Sc. thesis title: Study of nonlinear optical properties of Mn doped ZnO nano-structures using single beam z-scan technique

Sri Sathya Sai Institute of Higher Learning, Prasanthinilayam, Andhra Pradesh, India

B.Sc. Physics Honours **2009 - 2012**

B.Sc. project title: Token display

Sri Sathya Sai Institute of Higher Learning, Brindavan Campus, Bangalore, Kar-

nataka, India

Publications Lachit Saikia, Sarkar, T., Thomas, M., Raghunathan, V.A., Sain, A., and Sharma,

P. (2017). 'Curvature instability of chiral colloidal membranes on crystallization'.

Nature Communications, 8(1):1160.

Lachit Saikia and Sharma, P. 'Self assembly of cyclic polygon shaped fluid colloidal

membranes through pinning'. Soft Matter, 2018, 14, 9959-9966.

Lachit Saikia, Shah A.H., P. Pradhan, M. Molli, S. Muthukumar, B. Ahmed, E. Manikandan, S. S. S. Sai, K Venkataramaniah. 'Enhanced nonlinear optical absorption in Mn doped ZnO nanoparticles'. International Journal of Nanotechnology

and Applications, 2014,4,3,39-44.

P. Pradhan, M. Molli, L. Kumar V, **Lachit Saikia**, V. S. Muthukumar, S. Siva Sankar Sai, K Venkataramaniah. 'Study of nonlinear optical properties of Na doped V2O5 nanoparticles'. **International Journal of Nanotechnology and Applications**,

2014,4,3, 21-28.

Teaching experience

Invited teaching assistant in 'School on Hands-On Research in Complex System', held

at ICTP, Trieste, Italy, 2016.

Teaching assistant and grader for the course 'Mathematical Methods of Physics', Au-

gust - December term, 2016, Indian Institute of Science, Bangalore.

Academic distinctions

Qualified CSIR-UGC (NET) in December, 2013 (AIR - 142)

and awards Qualified GATE 2014 (AIR 48)

Best poster award in 12^{th} International Conference on Complex Fluids and Soft Matter, COMPFLU-2018 organized by IIT Roorkee.

Best poster award in experiment category at 'In-house symposium, 2017-18', Department of Physics, Indian Institute of Science, Bangalore.

Named in BARC OCES/DGFS 2014 merit list

Regional topper in Mathematics and Social Science, AISSCE, 2008. (Shillong Region).

Invited talks

"Soft matter physics", Sri Sathya Sai Institute of Higher Learning, Prasanthinilayam, A.P., India, 2017

"Self-assembly of colloidal membranes and curvature instability", Sri Sathya Sai Institute of Higher Learning, Bangalore, Karnataka, India, 2018

"Research at Indian Institute of Science, Bangalore", Debraj Roy College, Golghat, Assam, India, 2019

Conferences and Workshops attended

Annual March Meeting of American Physical Society at Boston, MA, USA, March 4-8, 2019.

 12^{th} International conference on complex fluids and soft matter, COMPFLU – 2018 held at IIT Roorkee.

Indo-US workshop on Soft Matter, IUWSM – 2018 held at IIT Roorkee.

School on Hands-On Research in Complex System, held at ICTP, Trieste, Italy, 2016.

In-house training course on Light Microscopy held at the Bio-imaging facility, IISc Bangalore, 27-28th February 2017.

New Colloids Discussion Meeting held at Raman Research Institute, Bangalore, India July 19-21, 2015.

Awareness Workshop on Research Opportunities Using the Facilities at VECC, DAE, Kolkata, held at Sri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam, A.P., India on $28 - 29^{th}$ of June 2013.

National Conference on Networking and Communications, held at Sri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam, A.P., India on $15 - 16^{th}$ of March 2013.

Outreach activities

Organized scientific demonstrations on the occasion of National Science Day Celebration, 2021 held at Dibru College as a coordinator of the Science Forum, Dibru College, Dibrugarh.

Member of the Dibru college website development committee, 2021.

Member of the green audit committee, Dibru college, Dibrugarh, 2021.