Rheology and Transport in Active and Passive Filaments

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Certificate

This is to certify that the thesis entitled "**Rheology and Transport in Active and Passive Filaments**" submitted by Sudipto Muhuri for the award of the degree of Doctor of Philosophy of Jawaharlal Nehru University is his original work. This has not been published or submitted to any other University for any other Degree or Diploma.

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Declaration

I hereby declare that the work reported in this thesis is entirely original. This thesis is composed independently by me at the Raman Research Institute under the supervision of Prof. Madan Rao. I further declare that the subject matter presented in this thesis has not previously formed the basis for the award of any degree, diploma, membership, associateship, fellowship or any other similar title of any university or institution.

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Acknowledgements:

To write here, is like sleepwalking back, down the traversed lanes, recalling it all; the moments, people and the places - from the joyous dreams of the sparrow to the recurring sorrow. And while my thoughts are crisscrossing across this long span of time, touching every note of this experience that has been embedded in me like a song, I guess I will have to start somewhere. Like they say in fairytales -'Once upon a time', half a decade and more ago, back in Pune were my friends- Ash, Anandamohan and Shiva. To them I owe this urge to embark upon this journey of doing my Ph.D. Apart from that, their company has always been refreshing. Ash in particular, I especially remember, for the all the drunken steps together and his critical analysis of the events and politics of our times, which helped in shaping and forming my own views.

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