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List of Publications

Published

1. **J.P. Singh**; S. Mishra; "Phase separation in collection of self propelled particles with variable speed", *Physica A*, 544 123530 (2020).
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3. **Jay Prakash Singh**; Sameer Kumar; and Shradha Mishra "Bond disorder enhances the information transfer in the polar flock", *J. Stat. Mech.* 083217 (2021).
- 4*. Sudipta Pattanayak, **Jay Prakash Singh**, Manoranjan Kumar, and Shradha Mishra "Speed inhomogeneity accelerates information transfer in polar flock" *Phys. Rev. E* 101, 052602 (2020).
- 5*. Sameer Kumar, **Jay Prakash Singh**, Debaprasad Giri, and Shradha Mishra "Effect of polydispersity on the dynamics of active Brownian particles" *Phys. Rev. E* 104, 024601 (2021).

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6. **Jay Prakash Singh**, Vivek Semwal and Shradha Mishra "Collection of self-propelled particles across an order-disorder interface" *preprint available* (2021).
7. **Jay Prakash Singh**, Sudipta Pattanayak, Jaydeb Chakrabarti and Shradha Mishra "Phases of passive colloids in activity driven bath" *preprint available* (2021).
- 8*. Vivek Semwal, **Jay Prakash Singh**, and Shradha Mishra "Phase separation in a binary mixture of active and passive particles" *preprint available* (2021).

Note* 4, 5 and 8 works are not the part of this thesis.