

## **LIST OF PUBLICATIONS**

### **A. International refereed journal:**

1. Karmakar, P. K. and Kalita, D., Dynamics of gravitational instability excitation in viscoelastic polytropic fluids. *Astrophysics and Space Science*, 363: 239. 1-11, 2018.  
doi:10.1007/s10509-018-3460-5
2. Kalita, D. and Karmakar, P. K., Nonlinear dynamics of gravitational instability in complex viscoelastic astrofluids. *AIP Advances*, 8: 085207. 1-15, 2018.  
doi:10.1063/1.5043301
3. Kalita, D. and Karmakar, P. K. Analyzing the instability dynamics of spherical complex astroclouds in a magnetized meanfluidic fabric. *Physics of Plasmas*, 27: 022902. 1-16, 2020. doi:10.1063/1.5143267
4. Kalita, D. and Karmakar, P. K., Adapted instabilities excited in spherical magnetized viscoelastic astroclouds with extreme dust-fugacity moderations. *European Physical Journal Plus*, 136: 479. 1-25, 2021. doi:10.1140/epjp/s13360-021-01479-9
5. Kalita, D. and Karmakar, P. K., Jeans instability in nonideal MHD plasma clouds with geometric curvature effects. *IEEE Transactions on Plasma Science*, 49: 2042-2047, 2021. doi:10.1109/tps.2021.3082811
6. Karmakar, P. K., Kalita, D., and Atteya, A. A hybrid GNA instability. *Scientific Reports*, 12: 19990. 1-16, 2022. doi: 10.1038/s41598-022-23854-x

### **B. Proceedings publications:**

1. Karmakar, P. K. and Kalita, D. Excitation dynamics of gravitational instability in complex viscoelastic polytropic fluids, Proceedings of 6<sup>th</sup> PSSI-Plasma Scholars Colloquium (PSC 2018), Sikkim Manipal Institute of Technology, Sikkim, 2018, 156-163.
2. Karmakar, P. K. and Kalita, D. Nonlinear excitation of gravitational instability in complex viscoelastic astrofluids, Proceedings of 6<sup>th</sup> PSSI-Plasma Scholars Colloquium (PSC 2018), Sikkim Manipal Institute of Technology, Sikkim, 2018, 164-171.