

Publications In International Journals

1. **Pankaj Mishra**, Jokhan Ram and Yashwant Singh,
Freezing transitions in a fluid of long elongated molecules,
J. Phys. Condens. Matter **16**, 1695 (2004).
2. **Pankaj Mishra** and Jokhan Ram
Effect of shape anisotropy on the phase diagram of the Gay-Berne fluid
Eur. Phys. J. E. **17**, 345 (2005).
3. **Pankaj Mishra** and Yashwant Singh,
Pair correlation functions in nematic: free energy functional and isotropic nematic transition,
Phys. Rev. Lett. **97**, 177801 (2006).
4. **Pankaj Mishra**, Swarn L Singh, Jokhan Ram and Yashwant Singh,
Pair correlation functions and a free-energy functional for the nematic phase,
J. Chem. Phys. **127**, 044905 (2007).
5. **Pankaj Mishra**, Ronald Blaak, C. N. Likos, H. Löwen
Density-functional theory of binary mixtures of superparamagnetic colloids
(To be published)
6. **Pankaj Mishra**
Theory of binary mixtures of colloidal system interacting via Yukawa potential
(Under Preperation)

Paper presented in national/international Conferences

1. International Conference on *Disorder, Complexity and Biology II*, held at BHU Varanasi, India
;January 5-8, 2009, organized by Department of Physics, Banaras Hindu University.
"Eutectic phase diagram of dipolar colloidal particles."
2. 7th Liquid Matter Conference, organised by The Liquid Section of The Condensed Matter
Division of the European Physical Society and Lund University at Lund, Sweden, 27 June to
1st July 2008.
"Density functional theory of a two dimensional mixture of superparamagnetic colloids"
3. International Conference on *Colloidal Dispersions in External Fields: CODEF II*, Gustav-
Stresemann-Institute e.V., Bonn, Germany, March-April'2008.
"Theory of binary mixtures of superparamagnetic colloids"

4. International Conference on *Assembly, Organization and Propulsions in Complex Systems*, held at IIT Chennai, India from 22-24 February 2007.

”Pair Correlation Functions in Nematics: A new Approach”

5. International Conference on *Disorder, Complexity and Biology*, held at BHU Varanasi, India ;July 12-15, 2004. (Organized jointly by Department of Physics, Banaras Hindu University and S.N. Bose National Centre for Basic Sciences, Kolkata).

”Effect of shape anisotropy on the Phase diagram of Gay-berne fluid”

6. Conference of liquid crystals and other soft materials, Organized by Raman Research Institute, Bangalore (India); December 2002.

”Phase diagram of long eleongated Gay-Berne system of Molecules.”

7. One Day National Conference on Science, Engineering and Technology, *VISION-2001*, held at Varanasi, India; May 1, 2001. (Organized by Research Students at Banaras Hindu University, Varanasi, India).

”Beauty and complexity of Liquid Crystals”.