



# Library Indian Institute of Science Education and Research Mohali



**DSpace@IISERMohali (/jspui/)**  
**/ Thesis & Dissertation (/jspui/handle/123456789/1)**  
**/ Master of Science (/jspui/handle/123456789/2)**  
**/ MS-14 (/jspui/handle/123456789/1078)**


Please use this identifier to cite or link to this item: <http://hdl.handle.net/123456789/1151>

Title:	Phase Separation in Colloids in the Presence of Activity
Authors:	Nampoothiri, Vishnu N. (/jspui/browse?type=author&value=Nampoothiri%2C+Vishnu+N.)
Keywords:	Physical Sciences Phase Separation Langevin Equation MD Simulation fluid particles
Issue Date:	26-Sep-2019
Publisher:	IISERM
Abstract:	In this work, we study the phase separation of brownian particles driven by activity. These particles which are self propelled with the direction of motion relaxing through rotational diffusion. As in [Redner 13] we first show that the suspension of ABPs, modelled as discs, can cluster even in the absence of an attractive interaction. Next, as in [Stenhammar 15] we look at binary mixture of active and passive particles and show activity induced phase separation of two. We look at the orientational order parameter to understand the structural properties of the clustered state.
URI:	IISERM (IISERM) <a href="http://hdl.handle.net/123456789/1151">http://hdl.handle.net/123456789/1151</a> ( <a href="http://hdl.handle.net/123456789/1151">http://hdl.handle.net/123456789/1151</a> )
Appears in	MS-14 (/jspui/handle/123456789/1078)
Collections:	

Files in This Item:

File	Description	Size	Format	
MS14122.pdf (/jspui/bitstream/123456789/1151/3/MS14122.pdf)	Full Text.pdf	8.17 MB	Adobe PDF	<a href="/jspui/bitstream/123456789/1151/3/">View/Open (/jspui/bitstream/123456789/1151/3/)</a>

Show full item record (/jspui/handle/123456789/1151?mode=full)

 (/jspui/handle/123456789/1151/statistics)

Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.