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# **SDI Review Form 1.6**

#### PART 1:

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Journal Name:	Physical Review & Research International		
Manuscript Number:	MS: 2012 PRRI 2642		
Title of the Manuscript:	Direct Correlation Function of Hard Molecular Fluid		

## **General guideline for Peer Review process is available in this link:**

(http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline)

• This form has total 9 parts. Kindly note that you should use all the parts of this review form.

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## **PART 2:** Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments		
Minor REVISION comments	<ol> <li>Because the main task of the manuscript is study the DCF of hard spherocylinder, the title of the manuscript is suggested to change to "Direct Correlation Function of Hard Spherocylinder Fluids".</li> <li>There are some typing errors in the manuscript. For example, In ABSTRACT: "The required homogeneous (DCF) is" should be "The required homogeneous DCF is"; Ref. 2: "M. (1988). Baus." Should be "Baus, M. (1988).", etc. Please make a careful proofreading.</li> </ol>	
Optional/General comments	Hard spherocylinder is a good model for a real fluid when the isotropic-nematic transition takes place. And therefore it is very valuable to study the structural and thermodynamic properties of such fluids. The direct correlation function of hard spherocylinder fluids were obtained in the manuscript by numerically solving the OZ integral equation with Percus-Yevick closure. The calculated direct correlation function is presented for the hard spherocylinder fluid with L/D=5.0 and 10.0. Good agreements between calculated values and simulation data are obtained, indicating that the numerical method proposed by the authors is efficient and correct. The manuscript could be accepted for publication after a minor revision is made.	

**Note: Anonymous Reviewer**