Report of the manuscript titled

"Hydrodynamics without Averaging - a Hard Rods Study'

The current version of manuscript is considerably improved by adding a seprarate section for the main results. Additionally the presentation of sections (3) and (4) have been improved considerably and the derivations are now clearer. The queries are also addressed satisfactorily and the necessary changes have been made to the draft.

This work has obtained several significant and intersting results in the context of hard rod model:

1. Established hydrodynmics on single microscopic configuration using (two types of) coarse graining without requiring the concept of local-equilibrium — just by making assumptions of local self-averaging for sufficiently generic states.

2. Estimated the errors that appears at every steps – iniital coarse-graining and evolution.

3. Demonstrated how this error changes the nature from statistical error to systematic erros as the size of the coarse graining region changed. This demonstation allowed the author to make important generic observation on the accuracy of the hydrodynamic approximation beyond diffusive correction.

4. The error analysis further implied that for sufficiently small coarse-graining scale the Euler hydrodynamic is accurate even on diffusive scale. However the density, averaged over initial configurations, receives diffusive correction explicitly. These two results led the author to justfy the BMFT and demonstrate the hydrodynamic phenomena 'diffusion from convection'.

I feel the current (significantly improved) version can be published.