

## Students' Annual Seminar

## Energy Spectra in 2-d buoyancy driven bubbly flows Vikash Pandey

Bubble laden flows appear in a variety of natural and industrial processes. A swarm of bubbles driven by buoyancy forms complex flow patterns that resemble turbulence. We study the statistical properties of such flows. We find that at low Reynolds number the flow can be described by the balance of buoyancy and viscous forces. On the other hand, at high Reynolds number, we observe a negative energy

flux indicative of an inverse cascade similar to

two-dimensional turbulence.

Friday, Mar 9<sup>th</sup> 2018 11:30 AM (Tea/Coffee at 11:00 AM) Seminar Hall, TIFR-H