



**TIFR Centre for Interdisciplinary Sciences,
Narsingi, Hyderabad 500075**

Seminar

**Understanding the Deep Earth: Lessons from Geophysical
Modeling**

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Geophysical modeling is one of the most important tools to understand processes of the deep Earth. With the help of geophysical modeling we can address some of the outstanding questions regarding the processes operating within the Earth's interior and their control on shaping the surface of the planet. Much of Earth's surface observations such as gravity anomalies, plate motions, dynamic topography and lithosphere stress field, owe their origin to convection within the Earth's mantle. While we understand the basic nature of such flow in the mantle, a lot remains unexplained, including the complex rheology of the deep mantle and how this density driven convective flow couples with the shallow surface. In this talk I will show how the geophysical community has been using numerical models to unravel some of the mysteries of the deep mantle. I will also talk about how I have been using numerical modeling in my work to understand the influence of the deep mantle on surface processes.

Thursday, Mar 20th 2014

11:30 AM (Tea/Coffee at 11:15 AM)

Seminar Hall, TCIS