



***Geosciences Division  
Physical Research Laboratory***

**Tuesday Seminar**

**Corals - unfolding the history of tropical oceans**

**Abstract**

Paleoclimatic reconstruction is important for understanding climate and its variations. Geochemical and isotopic proxies have been effectively used to study past climatic variations as they record changes in different properties of ocean. Corals provide unaltered high-resolution records of such proxies. Events like ENSO (El Nino Southern Oscillation) and IOD (Indian Ocean Dipole) observed in tropical Pacific Ocean and Indian Ocean respectively are result of amplified climatic variation. Such events have enormous socio-economic impacts globally and require better understanding.  $\delta^{18}\text{O}$ ,  $\delta^{13}\text{C}$  and  $\Delta^{14}\text{C}$  in coral skeleton are some of the potential tracers which acts as a proxy indicator of variations in SST, salinity, upwelling, rainfall etc. This presentation highlights use of geochemical proxies in corals for paleoclimatic reconstruction. Possibility of using these proxies to identify ENSO and IOD signatures in context of my proposed research plan would also be discussed.

**Speaker: Mr. Harsh Raj  
JRF, GSDN**

| <b>Date</b>      | <b>Time</b> | <b>Venue</b>              |
|------------------|-------------|---------------------------|
| 20-December-2016 | 16:00 hrs   | Ground Floor Lecture Hall |

**All are invited to attend and participate in discussion  
Tea at 15:30 hrs**

*Neeraj Rastogi, Seminar Secretary, Geosciences Division*