

# **Students' Annual Seminar**

## **Development of solid state NMR methods to probe stronger one-bond dipolar couplings**

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Dipolar couplings are the probes of internuclear distance between two nuclei. One-bond dipolar couplings provide experimental order parameters which are indicators of protein backbone fluctuations. Rotational-Echo Double Resonance (REDOR) is a standard SSNMR technique to probe heteronuclear dipolar coupling. However, accurate estimates from REDOR can be made only for weaker (couple of kHz) couplings at moderate Magic Angle Spinning (MAS) frequencies. In this talk, I will present the modifications to REDOR which will allow probing of stronger dipolar couplings (couple of tens of kHz) at medium MAS frequencies. Further, I will also briefly mention the effect of  $^1\text{H}$  homonuclear network on these heteronuclear dipolar coupling measurements.

***Tuesday, Apr 03<sup>rd</sup> 2018***

***03:00 PM (Tea/Coffee at 01:30 PM)***

***Seminar Hall, TIFR-H***