

**Tata Institute of Fundamental Research** 

Survey No. 36/P, Gopanpally Village, Serilingampally, Ranga Reddy Dist., Hyderabad - 500 046

## Seminar

#### Towards Widespread Use of Dynamic Nuclear Polarization NMR

# **Amrit Venkatesh**

### **EPFL**, Switzerland

Dynamic nuclear Polarization (DNP) has revolutionised NMR spectroscopy by improving NMR sensitivity by orders of magnitude. In this talk, state-of-the-art applications of DNP NMR such as structure determination of cementitious materials and nanoparticle-shell interfaces, and methods to develop DNP into a widespread technique will be presented.

#### **References:**

- 1. Y. Rao, et al. J. Phys. Chem. C 2022, 126, 27, 11310-11317.
- 2. Y. Rao, et al. J. Phys. Chem. Lett. 2022, 13, 7749-7755.
- 3. A. Morales-Melgares, et al. J. Am. Chem. Soc. 2022, accepted.
- 4. O. S. Lecina, et al. J. Am. Chem. Soc., 2022, 144, 9, 3998-4008.

# Wednesday, Dec 21<sup>st</sup> 2022 4:00 PM (Tea/Coffee at 3:45 PM) Auditorium, TIFR-H