**INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE**
**2A&B, Raja S.C. Mullick Road, Jadavpur, Kolkata-700032, India**

# Seminar Notice

Org. by

## Department of Solid State Physics

| | |
|---|---|
| **Title:** | Positional information readout in Ca2+ signaling |
| **Speaker:** | Dr. Vaibhav H. Wasnik<br>Affiliation: University of Geneva, Switzerland |
| **Date:** | January 19, 2018 (Friday) |
| **Time:** | 3:30 pm |
| **Venue:** | S N Bose Hall |
| **Abstract:** | Living cells respond to spatial signals. Signal transmission to the cell interior often involves the release of second messengers like Ca2+ . They will eventually trigger a physiological response by activating kinases that in turn activate target proteins through phosphorylation. Here, we investigate theoretically how positional information can be accurately read out by protein phosphorylation in spite of rapid second messenger diffusion. We find that accuracy is increased by binding of the kinases to the cell membrane prior to phosphorylation and by increasing the rate of Ca2+ loss from the cell interior. These findings could explain some salient features of conventional protein kinases C. |

**All are cordially invited to attend the seminar**