

# INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

2A&B, Raja S.C. Mullick Road, Jadavpur, Kolkata-700032, India

## Seminar Notice

Org. by

## Theoretical Physics Department

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| <b>Title:</b>    | Quantum coherence in attachment of incoherent electrons                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Speaker:</b>  | Professor Vaibhav Prabhudesai, TIFR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Date:</b>     | February 19, 2018 (Monday)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Time:</b>     | 4:00 p.m.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Venue:</b>    | A K Raychaudhuri Hall, Centenary building                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Abstract:</b> | <p>Coherence in molecular dynamics induced by coherent laser excitation is well known in the field of atomic, molecular and chemical physics [1]. Quantum interference of more than one paths resulting in a specific outcome is understood to be its consequence [2]. However, we have shown - for the first time - that attachment of incoherent electron as well induces such a quantum effect [3]. In this talk, I will describe the basics of dissociative electron attachment, the experimental tool that we have used for these measurements and finally our latest results.</p> <p>Ref.:</p> <p>[1] M. Shapiro &amp; P. Brumer, <i>Rep. Prog. Phys.</i> 66, 859 (2003).</p> <p>[2] G. Sansone <i>et al.</i> <i>Nature</i> 465, 763 (2010).</p> <p>[3] E. Krishnakumar, Vaibhav Prabhudesai and Nigel Mason, <i>Nat. Phys.</i> 14, 149 (2018).</p> |

All are cordially invited to attend the seminar