

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

**Seminar Notice**  
Org. by  
**School of Physical Sciences**

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| <b>Title:</b>    | <b>Machine learning for String Theory and QFT</b>  |
| <b>Speaker:</b>  | <b>Harold Erbin, Ludwig-Maximilians-Universität München, Munich, Germany</b>   |
| <b>Date:</b>     | <b>January 16, 2019 (Wednesday)</b>  |
| <b>Time:</b>     | <b>2:30 p.m.</b>   |
| <b>Venue:</b>    | <b>Physics Seminar Room - C406, 3rd Floor, Centenary Building, IACS</b>  |
| <b>Abstract:</b> | Machine learning has revolutionized most fields it has penetrated, and the range of its applications is growing rapidly. The last years has seen efforts towards bringing the tools of machine learning to QFTs (in particular, to study phase transitions) and, more recently, to string theory. After reviewing the general ideas behind machine learning, I will discuss several applications: 1) statistics of Calabi-Yau 3-folds, 2) generating effective field theories 3) building string field theory actions, 4) studying the confinement-deconfinement phase transition. |

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