

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

Title:	The darkness within: Unification, and revival of the right
Speaker:	Triparno Bandyopadhyay, Department of Physics, Calcutta University
Date:	August 23, 2017 (Wednesday)
Time:	3:00 p.m.
Venue:	Theoretical Physics Seminar Room (C406), 3rd Floor, Centenary Building, IACS
Abstract:	For all its success, the standard model of particle physics leaves ajar the door to further model building exercises by failing to satisfactorily account for phenomena like parity violation, neutrino mass generation, quantisation of charges, and arbitrariness of the hypercharge normalisation among others. The intent of the talk is to motivate a certain class of models with an extended gauge sector which addresses these issues, resulting in unification of the leptons and the quarks and of the gauge couplings. It will be shown that accounting for the 'dark sector' picks up a minimal model from the 'model zoo', with only one mandatory scale in-between the GUT and the electroweak scales. The minimalist nature of the model makes it highly predictive and testable at all symmetry breaking thresholds.

All are cordially invited to attend the seminar