

NITheCS MINI-SCHOOL:

A short introduction to path integral approach to quantum mechanics and quantum field theory

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ABSTRACT

In this course, we shall develop the path integral approach to quantum mechanics and quantum field theory. Path integral techniques have proved to be important in various areas of theoretical physics which includes statistical physics, many body physics, general relativity, cosmology and quantum field theory. This course will aim in formulating these techniques from scratch. A basic knowledge of non-relativistic quantum mechanics is the only prerequisite for this course.

BIOGRAPHY

Dr Sunandan Gangopadhyay completed his PhD in Physics from S.N. Bose National Centre for Basic Sciences (SNBNCBS), Kolkata, India in 2008. Thereafter, he was a postdoctoral fellow at the National Institute for Theoretical Physics (NITheP, now called NITheCS), Stellenbosch, during 2008-2009.

He was appointed as a lecturer in the Physics department of West Bengal State University, India, in 2009. He was a Visiting Academic in NITheP during 2013-2014.

Presently, he is an Associate Professor in the SNBNCBS. His research interests include theoretical high energy physics and gravitational physics. He has teaching experience of more than 14 years and has published around 150 research articles in international journals of repute.

