

# Open Talk

23<sup>rd</sup> July, 2019

3:00 PM

Fermion

SPEAKER

**Dr. Sreeraj T. P.**

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TITLE OF THE TALK

**Duality in spin systems and gauge theories**

ABSTRACT

Dualities provide a means to connect seemingly different physical theories and better understand the physical theories involved. Some of the famous examples are the self duality in two dimensional Ising model (Kramers - Wannier duality), and the duality between (2+1) dimensional  $Z_2$  lattice gauge theory and Ising model (Wegner duality). In this talk, I will describe a unifying perspective on construction of dualities using canonical transformation. In particular, we will discuss the construction of dualities in abelian and non abelian lattice gauge theories using canonical transformations.

HOST FACULTY

**Professor Manu Mathur**

Department of Theoretical Sciences

**S. N. Bose National Centre for Basic Sciences**

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