

Coupled $N = 2$ supersymmetric quantum systems: Symmetries and supervariable approach

Thursday, 30 July 2020 10:15 (30 minutes)

We consider specific examples of $calN = 2$ supersymmetric quantum mechanical models and list out all the novel symmetries. In each case, we show the existence of two sets of discrete symmetries that correspond to the Hodge duality operator of differential geometry. Thus, we are able to provide a proof of the conjecture which endorses the existence of more than one discrete symmetry transformation as the analogue of Hodge duality operation. Finally, we extend our analysis to a more general case and derive on-shell nilpotent symmetries within the framework of supervariable approach.

Secondary track (number)

Primary author: Dr GUPTA, Saurabh (National Institute of Technology Calicut)

Co-authors: Ms PRADEEP, Aditi; Ms S, Anjali; Mr NAIR, Binu M

Presenter: Dr GUPTA, Saurabh (National Institute of Technology Calicut)

Session Classification: Formal Theory

Track Classification: 10. Formal Theory