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ICTS Geometry and Physical Mathematics Seminar

Title : The image of the Hitchin morphism and the Chen-Ng^{^o} conjecture

Speaker : Aryaman Patel (Saarland University, Germany)

Date : Thursday, 12 February 2026

Time : 4:00 PM (IST)

Abstract : We study the Hitchin morphism for higher dimensional varieties and show that, for a certain class of varieties which we call *slightly positive*, the image of the Hitchin morphism from the Dolbeault moduli space coincides with the spectral base. In other words, a stronger version of the conjecture of Chen and Ng^{^o} holds for slightly positive varieties. As a special case, we show that this stronger version of the conjecture holds for any projective Hyperk^{^ahler} variety. As part of the proof, we modify the construction of spectral covers. We also show that the spectral base is irreducible for a large class of varieties that includes slightly positive varieties, and that Chen-Ng^{^o}'s conjecture is equivalent to the birational invariance of the image of the Hitchin morphism.

Venue : Chern Lecture Hall

Zoom Link: <https://icts-res-in.zoom.us/j/98085713375?pwd=xrlQc9bbF5wwxgB2LcalQpAnC4n6lg.1>

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