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TATA INSTITUTE OF FUNDAMENTAL RESEARCH

ICTS Geometry and Physical Mathematics Seminar

Title : The string group through shifted geometric quantization

Speaker : Aditya Dwarkesh (University of Regina, Canada).

Date : Thursday, 10 December 2026

Time : 03:30 PM (IST)

Abstract : Shifted symplectic structures are generalizations of ordinary symplectic structures, and are defined on simplicial manifolds satisfying certain Kan-like conditions, which are thought of as models for higher stacks. While geometric (pre)quantization in the ordinary setting produces prequantum line bundles, shifted geometric quantization for these higher stacks produces bundle gerbes: higher categorical versions of principal bundles. Given a compact simple Lie group G , the string group is an important example of a multiplicative bundle gerbe over G . It turns out that $\text{String}(G)$ is also the prequantization of BG viewed as a Lie group with a 2-shifted symplectic structure. In this talk, we will explain this story, and if time permits, provide a sketch of a new model for $\text{String}(G)$.

Venue : Chern Lecture Hall

Zoom Meeting: <https://icts-res-in.zoom.us/j/96776153920?pwd=WttLWLpfmTz3bYXNaZjhchJO7ipRna.1>

Meeting ID: 967 7615 3920

Passcode: 534155