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TATA INSTITUTE OF FUNDAMENTAL RESEARCH

ICTS Group Theory and Representation Theory Seminar

- Title** : Mautner's theorem on decomposing a unitary representation into irreducible ones
- Speaker** : Madabusi Santanam Raghunathan (Centre for Excellence in Basic Sciences, Mumbai)
- Date** : Wednesday, 08 October 2025
- Time** : 11:30 AM (IST)
- Abstract** : Let G be a locally compact group and ρ a unitary representation of G on a separable Hilbert space. Then there is a measure space (X, S, μ) and a (measurable) family of irreducible unitary representations $\{\rho_x | x \in X\}$ such that ρ is the direct integral of the $\{\rho_x | x \in X\}$. This result was obtained by F I Mautner in 1950. In this talk, I will outline a proof of the theorem after introducing the concepts and definitions involved.
- Venue** : Madhava Lecture Hall