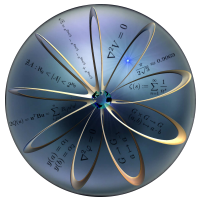

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unitary representation

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Let G be a topological group. A *unitary representation* of G is a pair (π, H) where H is a Hilbert space and $\pi : G \to U(H)$ is a homomorphism such that the mapping of $G \times H \to H$ that sends (g, v) to $\pi(g)v$ is continuous. Here $U(H)$ denotes the set of unitary operators of H. The group G is said to act unitarily on H or sometimes, G is said to act by unitary representation on H.