MAT 552

Introduction to

Lie Groups and Lie Algebras

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Proposition. Let G be a compact Lie group,

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 $\varrho: \mathsf{G} \to \mathbf{O}(\mathbb{V}, \langle , \rangle) \cong \mathbf{O}(n).$

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Definition. A real G-module \mathbb{V} is irreducible

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Lemma (Schur).

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Then either $\Phi = 0$, or else Φ is an isomorphism.