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Title: Real K-theory of compact Lie groups

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Let G be a compact connected Lie group, viewed as a G -space via the conjugation action. A theorem of Brylinski–Zhang states that the equivariant K-theory of G is the ring of Kähler differentials of its complex representation ring, while a recent deep theorem by Freed–Hopkins–Teleman asserts a canonical isomorphism between the twisted equivariant version and the Verlinde algebra of G . In this talk, I will present generalizations of both results in the context of Atiyah’s Real K-theory.