

## Elliptic involutive structures on compact Lie groups

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**Abstract.** Inspired by the work of Chevalley and Eilenberg on the de Rham cohomology on compact Lie groups, we prove that, under certain algebraic and topological conditions, the cohomology associated to left-invariant elliptic, and even hypocomplex, involutive structures on compact Lie groups can be computed using only Lie algebras, thus reducing the analytical problem to a purely algebraic one. The main tool is the Leray spectral sequence that connects the result obtained by Chevalley and Eilenberg to a result by Bott on the Dolbeault cohomology of a homogeneous manifold.

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