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Top-degree solvability in hypocomplex structures with applications to left-invariant hypocomplex structures on compact Lie groups

We use the theory of DFS spaces and tools related to Čech cohomology to establish a sufficient condition for top-degree solvability for the differential complex associated to a hypocomplex locally integrable structure. As an application, we show that the top-degree cohomology of left-invariant hypocomplex structures on a compact Lie group can be computed only by using left-invariant forms, thus reducing the computation to a purely algebraic one.