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Andrew Maurer* (andrew.b.maurer@gmail.com), Andrew Maurer, Boyd Graduate Studies Research Center, Department of Mathematics, Athens, GA 30602. *On the Finite Generation of Relative Cohomology for Lie Superalgebras.*

The cohomology ring of a complex Lie superalgebra is oftentimes nonzero in only finitely many degrees, and thus carries very little geometric information. Relative cohomology, on the other hand, can be nonzero in infinitely many degrees meaning certain relative cohomology rings may have positive Krull dimension. The author establishes finitude of this Krull dimension for classical Lie superalgebras relative to even subsuperalgebra. This paves the way for cohomology varieties and support varieties for modules to be defined and studied. The author considers questions of connectedness and realizability, along with specific examples when the cohomology ring is Cohen-Macaulay. (Received August 01, 2017)