



**LIE-RINEHART ALGEBRAS ON KAEHLER DIFFERENTIAL
AND POISSON ALGEBRAS COHOMOLOGY**

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Abstract

The modules over a Lie-Rinehart algebra and a cohomology with coefficients in a left module are the subjects of the current paper. Additionally, we demonstrate that Poisson cohomology is precisely the cohomology of the Lie algebra $\Omega_{\mathbb{K}}(A)$ over \mathbb{K} with coefficients in the adjoint representation and its Poisson module structure.

Keywords and phrases: Poisson algebra, Poisson form, Lie-Rinehart algebra, differential algebra, modules of differential.