

**DERIVATIONS
ON COMMUTATIVE REGULAR ALGEBRAS***A. F. Ber*

For a regular (in the sense of von Neumann) algebra \mathcal{A} over an algebraically closed field of characteristic 0, we describe the linear space $\mathcal{D}(\mathcal{A})$ of all derivations on \mathcal{A} . The description is obtained in terms of algebraically independent elements of \mathcal{A} . In particular, we estimate the dimension of the space $\mathcal{D}(\mathcal{A})$, where $\mathcal{A} = S[0, 1]$ is the algebra of measurable functions on $[0, 1]$.

Key words and phrases: derivation, von Neumann ring, regular algebra, algebraic independence.

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