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Ore extensions and Poisson algebras. (English) Zbl 1372.16025
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Summary: For a derivation δ of a commutative Noetherian \mathbb{C} -algebra A , a homeomorphism is established between the prime spectrum of the Ore extension $A[z; \delta]$ and the Poisson prime spectrum of the polynomial algebra $A[z]$ endowed with the Poisson bracket such that $\{A, A\} = 0$ and $\{z, a\} = \delta(a)$ for all $a \in A$.

MSC:

16S36 Ordinary and skew polynomial rings and semigroup rings
13N15 Derivations and commutative rings
17B63 Poisson algebras

Cited in 7 Documents

Keywords:

derivation of commutative Noetherian \mathbb{C} -algebra; homeomorphism; prime spectrum of Ore extension; Poisson prime spectrum of polynomial algebra

Full Text: [DOI](#) [arXiv](#)

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