

**Year: 2006****Vol.: 69****Fasc.: 3**

Title: Abelian regular subgroups of the affine group and radical rings

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We establish a correspondence between abelian regular subgroup of the affine group, and commutative, associative algebra structures on the underlying vector space that are (Jacobson) radical rings. As an application, we show that if the underlying field has positive characteristic, then an abelian regular subgroup has finite exponent if the vector space is finite-dimensional, while it can be torsion free if the dimension is infinite. We also give an example of an abelian, regular subgroup of the affine group over an infinite-dimensional vector space, which intersects trivially the group of translations.

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