عنوان مقاله:

Identities in ۳-prime near-rings with left multipliers

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خلاصه مقاله:

Let \mathcal{N} be a ۳-prime near-ring with the centerZ(\mathcal{N}) and n \geq ۱ be a fixed positive integer. Inthe present paper it is shown that a ۳-prime near-ring\mathcal{N} is a commutative ring if and only if it admits aleft multiplier \mathcal{F} satisfying any one of the followingproperties: (i)\:\mathcal{F}^{n}([x, y])\in Z(\mathcal{N}), (ii)\:\mathcal{F}^{n}(x\circ y)\in Z(\mathcal{N}),(iii)\:\mathcal{F}^{n}([x, y])\pm(x\circ y)\in Z(\mathcal{N}) and (iv)\:\mathcal{F}^{n}([x, y])\pm x\circ y\in Z(\mathcal{N}), for all x, y\in\mathcal{N}.

کلمات کلیدی:

Prime near-ring, derivations, commutativity, left multiplier-۳