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Medial quasigroups of prime square order

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Abstract: We prove that, for any prime p, there are precisely $2p^4 - p^3 - p^2 - 3p - 1$ medial quasigroups of order p^2, up to isomorphism.

Keywords: medial quasigroup; quasigroup affine over abelian group; classification of quasigroups; enumeration of quasigroups
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