
1077.22017**Rattaggi, Diego; Robertson, Guyan****Abelian subgroup structure of square complex groups and arithmetic of quaternions.** (English)

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The authors consider the fundamental group Γ of a certain square complex of nonpositive curvature, related to quaternion algebras. A fundamental fact is that in the considered cases Γ is commutative transitive, in the sense that the relation of commutativity is transitive on the nontrivial elements of Γ . In particular, Γ is a CSA-group, i.e. all its maximal abelian subgroups Γ_0 satisfy $g\Gamma_0g^{-1} \cap \Gamma_0 = \{1\}$ for all $g \in \Gamma \setminus \Gamma_0$

*Ostap M.Davydov (Chelyabinsk)**Keywords* : square complex; quaternion; CSA-group*Classification* :***22E40** Discrete subgroups of Lie groups**57M05** Fundamental group, etc.

Cited in ...