

## Spaces Associated to Quadratic Endofunctors of the Category of Groups

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### ABSTRACT

Square groups are gadgets classifying quadratic endofunctors of the category of groups. Applying such a functor to the Kan simplicial loop group of the 2-dimensional sphere one obtains a one-connected three-type. We consider the problem of characterization of those three-types  $X$  which can be obtained in this way. We solve this problem in some cases, including the case when  $\pi_2(X)$  is a finitely generated abelian group. The corresponding stable problem is solved completely.

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