

Short Communications IV Seminar on Categories and Applications Bellaterra, 6 to 9 of June of 2007

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Bigroupoid principal 2-bundles

We introduce the concept of an action of a bicategory and a bigroupoid, as a pseudoalgebra over a naturally defined pseudomonad. We describe bigroupoid principal 2-bundles, and we give a complete classification of these objects in terms of newly defined nonabelian cohomology. Finally we show that this bigroupoid principal 2-bundles gives Duskin-Glenn's simplicial 2-torsors after the application of the Duskin nerve functor for bicategories.

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