

Simona Paoli

University of Leicester

Weakly globular double categories

Several notions of weak 2-categories exist in the literature. Among these are the classical notion of bicategory as well as that of Tamsamani weak 2-category, which have been shown to be suitably equivalent by Lack and Paoli. We introduce a new notion of weak 2-category as a subcategory of double categories, which we call weakly globular. We then show that weakly globular double categories are suitably equivalent to Tamsamani weak 2-categories and thus to bicategories. This affords a new type of rigidification of a bicategory.

This is joint work with Dorette Pronk.