

Majority categories

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Abstract

In universal algebra, a *majority term* is a ternary term p for which the identities $p(x, y, y) = y$, $p(y, x, y) = y$ and $p(y, y, x) = y$ hold. The so-called matrix method due to Z. Janelidze allows one to formulate a condition on a category, which holds in a variety if and only the variety contains a majority term. We call a category satisfying this condition a *majority category*. The aim of this talk is to present some results from my work in progress on majority categories. Among other things, I will show that (i) the dual of the category of topological spaces is a majority category, and (ii) preorders are the only categories \mathbb{C} having epi-mono factorizations of morphisms such that both \mathbb{C} and \mathbb{C}^{op} are majority categories.