A category-theoretic framework for Fraïssé theory

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(joint work with Wiesław Kubiś)

Abstract

Fraïssé theory may be viewed as a study of *universal homogeneous objects.* These notions can be formulated abstractly in the language of category theory. In a suitable category it is possible to construct a universal homogeneous object as a (co)limit of a *Fraïssé sequence.* This framework includes and generalizes the classical model-theoretic Fraïssé theory as well as quite recent projective Fraïssé theory by Irwin and Solecki.

In the talk I will summarize the framework and briefly sketch several ways how to extend it – beyond the countable case; by weakening the amalgamation property, which is closely connected with the abstract Banach–Mazur game and generic objects; and beyond the discrete case, i.e. when the strict commutativity of diagrams is replaced by ε-commutativity with better and better ε.