

Regular theories and their monads

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The categories of equational theories, Lawvere theories, and finitary monads on \mathbf{Set} are equivalent and provide three different ways of describing categories of algebras in \mathbf{Set} . There is also an equivalent, operadic way of presenting algebras. So if we identify a class of equational theories as a subcategory of one of those categories, it gives rise to three other subcategories.

In this talk I will describe the categories of Lawvere theories, monads and operads that correspond to the category of regular theories. In case of Lawvere theories the characterization will be expressed in terms of factorization systems.

*Joint work with Stanisław Szawiel.