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Unification revisited. (English) [Zbl 0645.68046](#)

Foundations of logic and functional programming, Proc. Workshop, Trento/Italy 1986, Lect. Notes Comput. Sci. 306, 67-113 (1988).

Summary: [For the entire collection see [Zbl 0638.00037](#).]

In the literature unification is often treated as a simple and straightforward matter, even though it is recognized as a deep and fundamental concept. However when a thorough presentation is attempted, it is then realized that the matter is fairly subtle and treacherous. For instance the notion of most general unifier and its property of being unique up to renaming are open to different interpretations. In fact there are several approaches to unification, based on different mathematical concepts, which are not equivalent. We present here the alternatives and clarify their relationships. In the process new results are obtained related to the notions of equation solving, most specific generalization and constraint solving. This leads to a comprehensive presentation of an elementary theory of unification.

MSC:

[68Q65](#) Abstract data types; algebraic specification

[68T15](#) Theorem proving (deduction, resolution, etc.) (MSC2010)

Cited in **59** Documents

Keywords:

[equation solving](#); [elementary theory of unification](#)