

Ehrig, H.; Pepper, P.; Orejas, F.

On recent trends in algebraic specification. (English) Zbl 0689.68013

Automata, languages and programming, Proc. 16th Int. Colloq., Stresa/Italy 1989, Lect. Notes Comput. Sci. 372, 263-288 (1989).

[For the entire collection see [Zbl 0681.00016](#).]

Three different aspects which can be considered to be recent trends within theory and applications of algebraic specification are discussed. Those are as follows: behavioral approach, algebraic module specifications independent of a specific specification, and algebraic programming languages. The paper starts with an overview of initial, final and loose semantics of algebraic specification. The basic syntactical and semantical constructions are given. An overview of algebraic software development concepts and algebraic module specifications based on an arbitrary specification logic is given. The concept of algebraic semantics for programming languages and recent trends concerning algebraic programming languages is discussed. The language Opal that is currently being developed at the Technical University Berlin is taken as an example. The present role and future aims of algebraic specification is discussed as well.

Reviewer: G.Grigas

MSC:

[68P05](#) Data structures
[68N99](#) Theory of software

Cited in **5** Documents

Keywords:

abstract data tapes; varieties; equational specifications; initial algebra semantics; module specifications; software development; algebraic programming languages