

Using automated reasoning systems in natural computing

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Abstract

The simple intuitive verification or even the use of formal notation does not ensure us that a designed program or a set of specifications are correct. The availability of general purpose theorem proving tools as PVS opens the way for the elaboration and development of techniques that will allow us to attack the processes of verification in the scope of Natural Computing. Also, those formalizations are done in a generic framework in which the concrete implementation of each operation is not important, but only their properties. This is a suitable way of working before implementing them in a real model and brings us the possibility of simulating real experiments or developing new ones.