Automated Discovery of Symbolic Approximation Formulae using Genetic Programming

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Abstract

This paper describes the use of genetic programming to automate the discovery of symbolic approximation formulae. Results are presented involving discovery of numeric approximation formulae to common functions, which are compared to Padé approximations obtained through a symbolic mathematics package. Based on these results, we consider genetic programming to be a powerful and effective technique for the automated discovery of symbolic approximation formulae.

References


Index Terms

Computer Science
Artificial Intelligence
Keywords

Genetic Programming, Padé approximations, Symbolic Regression