Fourth Symbolic Regression and Modeling Workshop



Symbolic Regression and Modeling is used to designate the search for symbolic descriptions, usually in the language of mathematics, to describe and predict numerical data in diverse fields such as industry, economics, finance and science.

Symbolic modeling captures the field of symbolic regression: a genetic programming based search technique for finding symbolic formulae on numerical data in order to obtain an accurate and concise description of that data in symbolic, mathematical form. In the evolutionary computation field it also captures learning classifier systems, if and when they are applied to

obtain specific interpretable results in the field of interest.

Symbolic modeling can be defined as a set of techniques (including, but not limited to, symbolic regression and learning classifier systems) and representations that try to find a mathematical description and prediction in some numeric space. This can be contrasted with numerical modeling such as (generalized) linear regression, neural networks, kernel regression and support vector machines.



The key discriminator of producing symbolic results over numerical results is the ability to interpret and analyze the results, leading either to acceptance by field experts, or to heightened understanding of the theory in the field of application. Interpretation is key, and the workshop will focus heavily on this. The workshop will focus on advances in using symbolic modeling for real world problems in industry, economics, finance and science.

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