

Polyregular functions

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Transducers are like automata, but instead of accepting/rejecting they produce an output, such as a string or a tree. This talk is about a class of string-to-string functions, called the polyregular functions, which can be seen as a candidate for the notion of “regular” string-to-string transducers of polynomial growth. The class has many equivalent characterisations, including monadic second-order logic, two-way automata, an imperative programming language with for loops, and functional programming languages.