

Re: Category Theory of Algorithms

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relationship between mathematical objects. Has it been applied to the study of the mathematical properties of algorithms (as a mathematical object)?

No.

Well, that was simple and concise. It raises further questions, though. I'll get to that at the end.

Can anyone recommend some textbooks in this area?

In which area?

The area of studying algorithms as mathematical objects, with closure under some set of operations.

See what I'm after is an algebra of algorithms. I'd like to know if it's possible to take some small set of simple algorithms, and by repeated application of some operators build up to more complex algorithms. An, Algebra or Calculus of Algorithms, if you will.

Now, since nobody has applied Category Theory to the study of algorithms in the manner I was talking about, perhaps there have been difficulties, and it's been too hard. If that's the case, then: What, specifically, are those difficulties?

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