A Taste of Linear Optics - Abstract

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Abstract

Recent work on Linear Haskell gives us a vocabulary for a simple linear logic. We'll bootstrap a stronger linear logic on top of this foundation using a variation of an encoding of linear logic due to Mike Shulman.

Profunctor optics can be built on top of any symmetric monoidal category. Now having built one, we can explore the somewhat changed relationships between different types of optics in both the "simple" linear haskell and in this "full" intuitionistic linear logic setting where we have more connectives, and explore how they compare to the usual notion of lenses and other optics we can encode in Haskell.

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