Bicategories in algebra and linguistics

Joachim Lambek

The biclosed bicategory of rings, bimodules and homomorphisms inspired an application to the analysis of sentence structure, the so-called syntactic calculus. More recently, I have become interested in bicategories where each one-cell has both a left and a right adjoint. While non-trivial mathematical examples are hard to come by, examples abound in natural languages, utilizing the multiplicative fragment of compact noncommutative linear logic.