The Generalised Span Construction on Bicategories

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Abstract. At CT2010, I presented a more abstract framework for composition of spans, allowing us to construct span categories on categories without pullbacks. For simplicity, most of that talk focussed on constructing span categories on categories. In this talk I will expand upon the additional detail needed to construct the span category of a bicategory, spelling out all the sufficient conditions for a method of composing spans on a bicategory.

I will demonstrate these methods by showing two examples of ways to compose spans of bicategories. One being the folklore fact that pseudopullbacks can be used to form a bicategory of spans on a bicategory; the other being comma squares.

^{*}Joint work with Dorette Pronk