

Biadjoint Triangles

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There are several theorems on lifting of adjoints in the literature of 1-dimensional category theory. In [4], we give a 2-dimensional analogue of the adjoint triangle theorem of Dubuc [1]. Therein, we also study the counit and unit of the obtained biadjunction and give consequences of the main theorem, such as the pseudomonadicity characterization [3] and the coherence theorem due to Lack on strict replacements of pseudoalgebras of a 2-monad [2].

In this talk, we will show a proof of the adjoint triangle theorem of Dubuc and show how it works for the 2-dimensional case. To do so, we will prove the biadjoint triangle theorem as a consequence of a basic theorem on (pseudo)premonadic (pseudo)functors and Descent [4, 7, 5], making comments on further work [6]. If time permits, we will talk about applications, such as the general coherence theorem of Lack mentioned above.

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References

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