Introduction to Effectus Theory

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An effectus is a special form of category that has been introduced recently by the speaker and his research group. It is intended as a general categorical model for Boolean, probabilistic, and quantum logic. This talk will introduce the notion of effectus, and will discuss its main properties. Also it will briefly describe the EfProb tool for probabilistic computation that has been developed on the basis of effectus-theoretic ideas: it works uniformly for discrete, continuous and quantum probability.

Sources:

B. Jacobs. New Directions in Categorical Logic, for Classical, Probabilistic and Quantum Logic. In: *Logical Methods in Computer Science* 11(3), pp. 1–76, Oct. 2015. http://arxiv.org/pdf/1205.3940

K. Cho, B. Jacobs, Bas Westerbaan, Bram Westerbaan. *An Introduction to Effectus Theory.* 2015. http://arxiv.org/abs/1512.05813

EfProb library https://efprob.cs.ru.nl/