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Theory of para-toposes

A para-topos is a cartesian closed locally presentable category. Grothendieck toposes and quasi-toposes, frames, the category of small categories, and the category of ω-complete partial orders are examples. Every para-topos is a cartesian localisation of a presheaf category. Other examples include the category of algebraic models of the opposite of a small distributive category. A geometric morphism of para-toposes is defined as a pair of adjoint functors, with the left adjoint preserving finite products. We study exponentiable para-toposes. We show that the bicategory of free para-toposes (free over a cartesian category) is cartesian closed.

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