Theory and Applications of Categories, Vol. 8, 2001.

ADDENDUM: ASPECTS OF FRACTIONAL EXPONENT FUNCTORS

ANDERS KOCK AND GONZALO E. REYES

Concerning the notion and significance of Atoms: We found and utilized in [2] that the exponential functors like $(-)^D$ preserve colimits; Lawvere then pointed out (in *Toward the description in a Smooth Topos of the Dynamically Possible Motions and Deformations of a Continuous Body,* Cahiers de Topologie et Géométrie Différentielle Catégoriques XXI (1980), 337-392) that this implies the existence of right adjoints for them, and that these right adjoints deserve study. See also *Toposes of Laws of Motion* , Transcript of video of invited talk at AMS Meeting 924, Montreal, September 1997, (pdf) `http://www.acsu.buffalo.edu/ wlawvere`

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[2] A. Kock and G.E. Reyes, Manifolds in formal differential geometry, in Durham Proceedings 1977, Springer Lecture Notes 753 (1979).

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Received by the editors 2001 January 2.
Published on 2001 February 7.

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