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Leon Hendrian (Göttingen)

Title: Multiplicative Structures in Orthogonal Calculus

Abstract: Orthogonal Calculus is a calculus of functors for functors from real inner-product spaces to (topological) spaces. Many of the functors typically studied using Orthogonal Calculus, such as BO or BTOP, admit a lax symmetric monoidal structure, yet such structures have not played a role in Orthogonal Calculus so far.

After some introduction and/or overview of Orthogonal Calculus, I will explain a result which states that the Taylor approximations of a lax symmetric monoidal functor are themselves lax symmetric monoidal. The proof of it uses methods of infinity-category theory such as Day convolution. I will also explain what kind of maps are induced on the derivative spectra of a lax symmetric monoidal functor.