

1134-18-74

Jonathan Beardsley (jbeards1@uw.edu) and **Liang Ze Wong*** (wonglz@uw.edu). *The enriched Grothendieck construction*. Preliminary report.

Fibrations, or fibered categories, were introduced by Grothendieck in order to define stacks and descent theory. They have since found numerous applications outside of algebraic geometry, such as to algebraic topology, logic, and type theory, and have been generalized to arbitrary 2-categories. The Grothendieck construction and its inverse show that the category of fibrations over a base category \mathcal{B} is equivalent to the category of pseudofunctors $\mathcal{B}^{op} \rightarrow \mathbf{Cat}$. In this talk, we develop the theory of fibrations for categories enriched over a semi-cartesian monoidal category \mathcal{V} , along with enriched versions of the Grothendieck construction and its inverse. We then highlight some homotopical features that arise when \mathcal{V} is the category \mathbf{sSet} of simplicial sets. This is joint work with Jonathan Beardsley. (Received August 17, 2017)