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**Cheyne Miller\*** ([cmiller@gc.cuny.edu](mailto:cmiller@gc.cuny.edu)). *Iterated integrals for Local Zig-Zag Hochschild Complexes*. Preliminary report.

We define a new higher Hochschild Complex with an Iterated Integral map to model differential forms on the space of bigons on  $M$ . In particular, given a gerbe with structure 2-group coming from a crossed module of matrix-groups, there is an element in our Zig-Zag Hochschild complex associated to the 2-holonomy given by such a gerbe. This paper introduces an initial construction central to the author's PhD Thesis. (Received January 17, 2015)