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**Yorck Sommerhäuser\*** ([sommerh@mun.ca](mailto:sommerh@mun.ca)), Memorial University of Newfoundland, Department of Mathematics and Statistics, St. John's, NL A1C 5S7, Canada. *Extensions of Yetter-Drinfel'd Hopf Algebras I*. Preliminary report.

The theory of extensions of Hopf algebras carries over to Hopf algebras in categories, and therefore in particular to Yetter-Drinfel'd Hopf algebras, without essential modifications. However, there are important examples of Yetter-Drinfel'd Hopf algebras that do not fit into this framework that arises via direct generalization, because in these examples, the so-called cleaving map is not a morphism in the category. We will present a generalized concept of extensions that encompasses also these examples. The talk is based on joint work with Yevgenia Kashina, who will give the following talk and explain which cohomological data are necessary to describe these generalized extensions. (Received February 19, 2018)