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James M. Borger* (james.borger@gmail.com). *Elliptic Witt vectors and jet spaces*. Preliminary report.

Witt vectors, lambda-rings, delta-rings, and arithmetic jet spaces are rooted in Frobenius lifts, which is to say lifts of the p -th power maps. If we view the p -th power maps as having their origin in the isogenies of the multiplicative group, it is natural to ask whether there are analogues of this package for other groups, such as elliptic curves. If by this we mean the universal elliptic curve, then there are, as first observed by Charles Rezk. There are a number of complications, such as needing to work over the moduli space of elliptic curves throughout, but seen in the right way the development is the same.

In this talk, I'll take the opportunity to collect what I know about elliptic Witt vectors and related ideas and suggest some directions for future development. (Received August 30, 2021)