

Unstable synthetic deformations

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I will talk about joint work with Piotr Pstragowski which develops synthetic deformations of unstable homotopy theories. In the motivating example, we construct a category of E -synthetic spaces, for a sufficiently nice homology theory E , which categorifies the unstable E -Adams spectral sequence and has as its special fiber a suitable derived category of unstable E_*E -coalgebras. I will sketch some of the machinery that goes into and comes out of this.