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Urs Schreiber* (urs.schreiber@gmail.com). *Obstruction Theory for Parameterized Higher WZW-Terms.*

I present a general characterization of the obstructions for higher WZW-terms (higher gerbes with connection) defined on some higher (or derived) group stack G/H to have a parameterization over higher Cartan geometries locally modeled on G/H . Applied to the canonical Kostant-Souriau line bundle the construction reproduces metaplectic pre-quantization. For the traditional degree-3 WZW term it reproduces the Green-Schwarz anomaly; for the degree-7 WZW term we get a Fivebrane-analog, for the degree-11 term a Ninebrane-analog. Applied to the exceptional cocycles on extended super-Minkowski spacetimes the construction yields a forgetful infinity-functor on globally defined (classical anomaly free) Green-Schwarz super p-brane sigma models propagating on higher super etale stacks, which sends these to G-structures on these super stacks, for G the higher Heisenberg group stack of the higher WZW term. Specifically for the super-5-brane sigma-model this yields a forgetful infinity-functor from its classical anomaly free backgrounds to super etale 3-stacks satisfying the equations of motion of 11-dimensional supergravity and satisfying a further topological constraint.

Notes are here: <http://ncatlab.org/schreiber/show/Obstruction+theory+for+parameterized+higher+WZW+terms> (Received February 10, 2015)