1154-55-1972   **Matthew Spong*** (`matt.spong@gmail.com`), 16/671 Park St, Brunswick, VIC 3056, Australia, and **Zhen Huan**. *Twisted quasi-elliptic cohomology and a twisted Chern character map.* Preliminary report.

Let G be a finite group and X be a G-space. In a recent paper, Huan constructed the quasi-elliptic cohomology theory. This is a variant of Tate K-theory assigning a $\mathbb{Z}[q^{\pm}]$-module $QEll(X /\!/ G)$ to the orbifold $X /\!/ G$. In this talk, given a 3-cocycle α, we present a construction of an α-twisted version of $QEll$. Furthermore, we also discuss the construction of a twisted Chern character map from the latter object to an α-twisted version of Devoto's G-equivariant elliptic cohomology, which appeared in a recent paper of Berwick-Evans. In the future, we expect to use these constructions to define twisted power operations in quasi-elliptic cohomology, and to compare them to operations in Devoto's theory. (Received September 16, 2019)

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