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**Gabe Angelini-Knoll\*** ([angelini@math.msu.edu](mailto:angelini@math.msu.edu)) and **Dominic Culver**. *Towards Topological Hochschild homology of  $BP\langle 2 \rangle$* . Preliminary report.

In 2009, M. Hill and T. Lawson constructed the second truncated Brown-Peterson spectrum as a highly structured ring spectrum at the prime three using the theory of Shimura curves of small discriminant. This makes the topological Hochschild homology of this spectrum more amenable to computation. In particular, the May-type spectral sequence for topological Hochschild homology, constructed in joint work with A. Salch, applies to this spectrum. In ongoing joint work with D. Culver, we combine this tool with a slew of more classical tools in order to compute topological Hochschild homology of the second Brown-Peterson spectrum with increasingly complex coefficients. Once completed, this will give a first approximation to algebraic K-theory of the second truncated Brown-Peterson spectrum. This talk will be a progress report on the project so far. One longterm goal of this project is to determine if algebraic K-theory of the second truncated Brown-Peterson spectrum has chromatic complexity three as suggested by the red-shift conjecture of Ausoni-Rognes. (Received January 23, 2019)