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Amita Malik* (amalik10@illinois.edu), 1409 W Green Street, Urbana, IL 61801, and **Armin Straub**. *Sporadic Apéry-like sequences in the p -adic universe*.

In 1982, Gessel showed that the Apéry numbers associated to the irrationality of $\zeta(3)$ satisfy Lucas congruences. In this talk, we discuss the corresponding congruences for all sporadic Apéry-like sequences. In several cases, we are able to employ approaches due to McIntosh, Samol-van Straten and Rowland-Yassawi to establish these congruences. However, for the sequences often labeled s_{18} and η , we require a finer analysis. As an application, we investigate modulo which numbers these sequences are periodic. We also investigate primes which do not divide any term of a given Apéry-like sequence. This is joint work with Armin Straub. (Received September 01, 2015)