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**Madeline Locus Dawsey\*** (mdawsey@uttyler.edu) and **Ken Ono**. *Recent developments in moonshine.*

The most famous example of a connection between representation theory and number theory is the Monstrous Moonshine Conjecture, proven by 1998 Fields Medalist Richard Borcherds, which asserts that the character dimensions of the Monster group, the largest of the sporadic finite simple groups, are dictated by the Fourier expansions of a distinguished set of modular functions called McKay-Thompson series. Recently DeHority, Gonzalez, Vafa, and Van Peski established that a weak form of moonshine holds for every finite group. Weak moonshine only relies on group character tables, which are not isomorphism class invariants, and so non-isomorphic groups can have the same McKay-Thompson series. In joint work with Ken Ono, we address this issue by defining the notion of “higher width moonshine.” We prove that complete width 3 moonshine determines groups of fixed order up to isomorphism. (Received February 14, 2020)