1145-AE-635　　　　**Madeline Locus Dawsey*** (`madeline.locus@emory.edu`) and **Riad Masri**. *The Andrews Smallest Parts Partition Function.*

The partition function $p(n)$ has been a testing ground for some of the deepest phenomena about modular forms in number theory. For example, the study of its size gave birth to the "circle method" in analytic number theory, and the delightful congruence properties discovered by Ramanujan offered glimpses of the theory of Hecke operators and Galois representations, which are now pillars in modern mathematics. A few years ago, Andrews defined the smallest parts partition function, $\mathrm{spt}(n)$, and researchers have discovered that its properties are dictated by functions called *harmonic Maass forms*, generalizations of modular forms. In this talk, we recall some of the startling properties of $\mathrm{spt}(n)$, including some of the speaker's own work in the subject. (Received September 11, 2018)