1116-11-1702 Michael Griffin, Marie Jameson* (mjameson@utk.edu) and Sarah Trebat-Leder. On p-adic modular forms and the Bloch-Okounkov theorem.

Bloch-Okounkov studied certain functions on partitions f called shifted symmetric polynomials. They showed that certain q-series arising from these functions (the so-called q-brackets $\langle f \rangle_q$) are quasimodular forms. We revisit a family of such functions, denoted Q_k , and study the p-adic properties of their q-brackets. To do this, we define regularized versions $Q_k^{(p)}$ for primes p. We also use Jacobi forms to show that the $\langle Q_k^{(p)} \rangle_q$ are quasimodular and find explicit expressions for them in terms of the $\langle Q_k \rangle_q$. (Received September 21, 2015)