## 1093-11-137

## **David W. Farmer\*** (farmer@aimath.org), Sally Koutsoliotas and Stefan Lemurell. Coefficients of modular forms start out negative.

Modular forms of small weight and small level do not exist. As the weight or the level increases, the "first" cusp forms which appear are very likely to have a negative second Fourier coefficient. A similar phenomenon occurs in higher rank. We use L-functions to provide a simple explanation. (Received August 08, 2013)