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**Reinier Broker\*** ([reinier@math.brown.edu](mailto:reinier@math.brown.edu)), Brown University, Box 1917, 151 Thayer Street, Providence, RI 02912, and **Kristin Lauter**. *Evaluating Igusa functions*.

We investigate a new algorithm to evaluate Igusa functions by using Fourier coefficients of Siegel Eisenstein series. We give completely explicit bounds on the size of the Fourier coefficients, and show how to compute the Fourier coefficients efficiently by using classical modular forms of half-integral weight. (Received September 14, 2011)