NUMERICAL CALCULATION OF TWISTED ADJOINT L-VALUES ATTACHED TO MODULAR FORMS

YOSHIO HIRAOKA

Abstract. Doi, Hida, and Ishii have shown that the values of twisted adjoint L-functions $L(1, \mathrm{Ad}(f) \otimes \chi)$ attached to modular forms f are closely connected with discriminants of Hecke fields. Goto has given a numerical example of this L-value for an elliptic cusp form f of level 1 and weight 20. We shall show a method to calculate the L-values, which is more effective than Goto's, and give new numerical examples.