1035-11-995 Yasuhiro Goto* (ygoto@cc.hokkyodai.ac.jp), Dept. of Mathematics, Hokkaido Univ. of Education at Hakodate, 1-2 Hachiman-cho, Hakodate, Hokkaido 040-8567, Japan. Zeta-functions and L-series of certain Calabi-Yau threefolds.

We discuss the L-series of certain K3-fibered Calabi-Yau threefolds defined over the rationals. This is part of an on-going joint work with R. Kloosterman and N. Yui about the modularity of such threefolds. The varieties we look at include weighted projective threefolds of diagonal type and quasi-diagonal type. We will construct many Calabi-Yau threefolds with various types of K3-fibrations. (Received September 18, 2007)