1145-11-417 **Tonghai Yang*** (thyang@math.wisc.edu), Department of Mathematics, University of Wisconsin, Madison, WI 53706, and **Hongbo Yin** (yinhongbo0218@126.com) and **Peng Yu** (pyu@amss.ac.cn). The Lambda invariant and its CM values.

In this talk, we will show that the usual lambda invariant $\lambda(\tau)$ is a good choice among its 6 possible counterparts for the CM points $\tau^0 = \frac{d+\sqrt{d}}{2}$ by showing that the CM value $\lambda(\tau_0)$ is an algebraic integer and can be used to easily construct units. We also give a factorization formula for the norm of $\lambda(\frac{d_1+\sqrt{d_1}}{2}) - \lambda(\frac{d_2+\sqrt{d_2}}{2})$, similar to the beautiful Gross-Zagier factorization formula of singular moduli. (Received September 05, 2018)