4.5.3 制限のない場合

定理 4.14 (van der Geer-Zagier [12])

$$M(\Gamma_K) = \mathbb{C}[A_2, B_4, C_6, D_8, E_3, F_5, H_9].$$

ただし,

$$\begin{aligned}
D_8^2 &= 256A_2^5C_6 - 128A_2^4B_4^2 + 16A_2^3B_4D_8 \\
&\quad -656A_2^3B_4C_6 + 776A_2^2B_4^3 - 261A_2B_4^2D_8 \\
&\quad +27B_4D_8^2 - 27A_2^2C_6^2 + \frac{495}{2}A_2B_4^2C_6 - \frac{947}{16}B_4^4 \\
&\quad +54B_4C_6^3, \\
F_5B_4 &= c\left(A_2B_4 - \frac{1}{2}C_6\right)E_3, \quad c^4 = -2^{10}, \\
C_6E_3^2 &= B_4^3, \\
F_5^2 &= -2i(A_2^2E_3^2 - \frac{1}{2}A_2B_4^2 + \frac{1}{16}B_4C_6).
\end{aligned}$$

$$\sum_{k=0}^{\infty} \dim M_k(\Gamma_K)t^k = \frac{1-t+t^3+t^4+t^8+t^9-t^{11}+t^{12}}{(1-t^2)^2(1-t^6)}.$$

4.6 $K = \mathbb{Q}(\sqrt{17})$ の場合

4.6.1 Symmetric, even weight case

定理 4.15 (Hermann [21])

$$M_{\mathrm{ev}}^s(\Gamma_K) = \mathbb{C}[A_2, B_4, B_6, C_4, C_6],$$

$$\sum_{k=0}^{\infty} \dim M_{2k}^s(\Gamma_K)t^{2k} = \frac{1+t^2+3t^4+5t^6+8t^8+11t^{10}}{1-t^6}.$$

4.6.2 Symmetric case

定理 4.16 (近岡 [3]) $M^s(\Gamma_K) = \mathbb{C}[A_2, B_4, B_6, C_4, C_6, D_9, F_7, F_9].$