$Q : \mathbb{Z}^n \to \mathbb{Z}$

quadratic form

signature $(1, n-1)$

$Q \leftrightarrow B(x, y)$

$$v^{\frac{n}{4}-\frac{k}{2}} \sum_{X \in \mathbb{Z}^n} P\left(\sqrt{v}\left(X + \frac{z}{v} X_0\right)\right) q^{Q(X)} \zeta^{B(X, X_0)}$$

$$\in J^*_{k, Q(X_0)}$$

$$\begin{cases} P(X)\, e^{-\pi Q(X)} & \text{small} \\ \left(-\frac{1}{\pi}\Delta_Q + E\right) P = \left(k - \frac{n}{2}\right) P \end{cases}$$

$$P(X) = q(X_\perp)\, e^{4\pi v Q(X_\perp)}$$

$\left(X \equiv X_\perp \mod \mathbb{R} X_0, \ (X_\perp, X_0) = 0\right)$

q spherical, Grad ν

$$\sum_{X \in \mathbb{Z}^{2k}} q(X_\perp)\, e^{4\pi v Q(X_\perp)}\, q^{Q(X)}\, \zeta^{B(X, X_0)}$$

$$\in J^*_{k+\nu,\ B(X_0)}$$

$$\sum_{X \in \mathbb{Z}^{2k}} e^{4\pi v Q(X_\perp)}\, q^{Q(X)}\, \zeta^{B(X, X_0)}$$

$$\in J^*_{k, m,\ m = Q(X_0)}$$

$Q(X_\perp) < 0$

$Q : \mathbb{Z}^{2k} \to \mathbb{Z}$ pos. def. min.

$$\sum_{X \in \mathbb{Z}^{2k}} P(X)\, q^{Q(X)}\, \zeta^{B(X, X_0)}$$

P: Spherical Polynom, Grad ν

$$\in J_{k+\nu, Q(X_0)}$$

auf $\mathbb{R}^{2k}/\langle X_0 \rangle$

$Q(X) = X^{(1)} X^{(2)}$ $\quad \ldots X^{(1)\vee} + \ldots X^{(2)\vee}$ $\quad \frac{\partial^{\alpha-\beta}}{\partial^\alpha \partial^\beta}$

$X_0 = (1,1)$ $\quad m = 1$

$X = (\alpha, \beta)$ $\quad \alpha + \beta$ $\quad (1,0)$ $\quad (0,1)$

$= \frac{\alpha+\beta}{2}(1,1) + \frac{\alpha-\beta}{2}(1,-1)$ $\quad \alpha$ $\quad \beta$

$$\sum e^{\pi v |\alpha-\beta|^2} q^{\alpha\beta}\, \zeta^{\alpha+\beta} \in J^+_{\nu+1,1}$$