

$$N = 217 = 7 \cdot 31$$

By the Ibukiyama-Kitayama dimension formula,
 $\dim(S_4(K(217))) = 113$

By the Skoruppa-Zagier dimension formula and Jacobi restriction,
the lift dimension of $S_4(K(217))^+$ is 41
the nonlift dimension of $S_4(K(217))^+$ is heuristically 66
 $\dim(S_4(K(217))^+)$ thus is heuristically 107
 $\dim(S_4(K(217))^-)$ is heuristically 6

The heuristic dimensions are correct by the spanning results to follow

$\dim(J_{\{2,217\}}^{\{\text{cusp}\}}) = 6$ (Skoruppa-Zagier), so need to span to within 5 dimensions

$q = 5$ for TraceDown

After TD($\text{Grit}(J_{\{4,1085\}}^{\{\text{cusp}\}})$) and $(\text{Grit}(J_{\{2,217\}}^{\{\text{cusp}\}}))^2$,
spanned rank in $S_4(K(217))^+$ is 107
spanned rank in $S_4(K(217))^-$ is 0

After Borcherds products,
spanned rank in $S_4(K(217))^-$ is 6

Final spanned rank in $S_4(K(217))^+$ is 107

Final spanned rank in $S_4(K(217))^-$ is 6

$S_2(K(217))$ is determined by Jacobi restriction and the $H4Ndd(2,+)$ test
($H_4(217,2,2)^+ = 0$)

So $S_2(K(217)) = \text{Grit}(J_{\{2,217\}}^{\{\text{cusp}\}})$ (dimension 6)