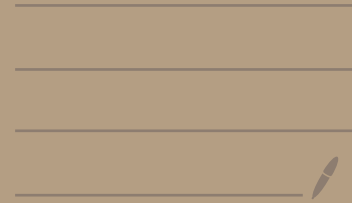


Formulas for c^{sm} classes



recall

$$[\bar{\Omega}_I] = \text{Sym}_{t_1 \dots t_k} \left(\prod_{a=1}^k \left(\prod_{b=i_a+1}^n (z_b - t_a) \right) \prod_{1 \leq a \leq b \leq k} \frac{1}{(t_b - t_a)} \right)$$

← essentially the Vandermonde $\frac{\det(\dots)}{\det(\dots)}$ formula for Schur functions

fact

$$c^{\text{sym}}(\Omega_I) = \text{Sym}_{t_1 \dots t_k} \left(\prod_{a=1}^k \left(\prod_{b=1}^{i_a-1} (z_b - t_a + h) \right) \prod_{b=i_a+1}^n (z_b - t_a) \right) \prod_{1 \leq a \leq b \leq k} \frac{1}{(t_b - t_a)(t_a - t_b + h)}$$

← "weight functions"

$\text{Gr}_2 \mathbb{C}^4$

Schur expansion

$$c^{\text{Sm}}(\Omega_{34}) = [\bar{\Omega}_{34}] + 3[\bar{\Omega}_{24}] + 4[\bar{\Omega}_{14}] + 4[\bar{\Omega}_{23}] + \\ + 4[\bar{\Omega}_{13}] + [\bar{\Omega}_{12}]$$

(after putting $z_1 = z_2 = z_3 = z_4 = 0$
 $\hbar = 1$)

$$(z_1 - z_3 + \hbar)(z_1 - z_4 + \hbar)(z_2 - z_3 + \hbar)(z_2 - z_4 + \hbar)$$

$$z_1 + z_2 - z_3 - z_4 + \underline{4\hbar}$$

$$(z_1 - z_4 + \underline{2\hbar})(z_2 - z_4 + \underline{2\hbar})$$

(sign behavior!)

$$\frac{c^{sw}(\Omega \text{ [diagram]})}{c(\text{TGr})} = s \text{ [diagram]} - \left(4s \text{ [diagram]} + 3s \text{ [diagram]} + 3s \text{ [diagram]} \right) \\
 + \left(10s \text{ [diagram]} + 13s \text{ [diagram]} + 5s \text{ [diagram]} + 10s \text{ [diagram]} + \right. \\
 \left. + 6s \text{ [diagram]} + 13s \text{ [diagram]} \right) - (\dots) + (\dots) -$$

(sign behaviour!)

In $H^*(Gr_3 \mathbb{C}^6)$

$$\begin{array}{|c|c|} \hline & \\ \hline & \\ \hline \end{array} \cdot \begin{array}{|c|c|} \hline & \\ \hline & \\ \hline \end{array} = \begin{array}{|c|c|c|} \hline & & \\ \hline & & \\ \hline \end{array} + 2 \begin{array}{|c|c|c|} \hline & & \\ \hline & & \\ \hline & & \\ \hline \end{array} + \begin{array}{|c|c|c|} \hline & & \\ \hline & & \\ \hline & & \\ \hline \end{array}$$

$$+ 11 \begin{array}{|c|c|c|} \hline & & \\ \hline & & \\ \hline & & \\ \hline & & \\ \hline \end{array} + 11 \begin{array}{|c|c|c|} \hline & & \\ \hline & & \\ \hline & & \\ \hline & & \\ \hline \end{array} + 46 \begin{array}{|c|c|c|} \hline & & \\ \hline & & \\ \hline & & \\ \hline & & \\ \hline \end{array} + 108 \begin{array}{|c|c|c|} \hline & & \\ \hline & & \\ \hline & & \\ \hline & & \\ \hline \end{array}$$

all $c^{\text{sm}}(\Omega_I)$ classes

(sign behavior!)