

$$e_4^{(c)} = (n-2)(n-3)(1-nc) \frac{e_2^2}{2} + (n^2(n-1)c - n(n+1)) e_4$$

$$\Rightarrow \text{THM: } e_d^{(c)} \Big|_{c=\frac{1}{n}} = e_d$$

THM: \exists a basis B_c in $[\mathbb{C}] \otimes S(V)^{S_n}$

$$\{ e_d^{(c)} \}$$

$d = (d_1 \leq d_2 \leq d_3 \leq \dots \leq d_m \leq n)$ such that

(1) $e_{kn}^{(c)}, e_d^{(c)} \in B_c$

(2) B_c is orthogonal w.r.t. \langle, \rangle_c in $S(V)$

$$\langle p, f \rangle_c = \mathcal{P}_p^{(c)}(f)$$

$V^* = V$ by $p = \deg f$

$$S(V^*) = S(V)$$

$$e_{(d_1, \dots, d_m)} = e_{d_1} e_{d_2} \dots e_{d_m} + \text{lower terms}$$

(3) $B_c|_{c=0}$ is compatible with $\text{rad } \langle, \rangle_c|_{c=0}$.