

$$\eta /: \eta[i_]^2 = 0; \quad \eta /: \eta[i_] \eta[j_] = 0;$$

TB $_{i_,j_}[\xi_]$:=

Expand $[\xi /.$ {

$$f_ \cdot v_{k_} \Rightarrow \text{Plus}[f v_k / . v_j \rightarrow (1 - t - \eta[i]) v_i + (t + \eta[i]) v_j,$$

$$(t - 1) (\text{Coefficient}[f, \eta[i]] - \text{Coefficient}[f, \eta[j]]) *$$

$$(u_k / . u_j \rightarrow (1 - t) u_i + t u_j) * u_i w_j,$$

$$\text{K}\delta_{k,i} (f / . _ \eta \rightarrow 0) (u_j - u_i) u_i w_j],$$

$$u_j \rightarrow (1 - t) u_i + t u_j,$$

$$w_i \rightarrow w_i + (1 - t^{-1}) w_j, \quad w_j \rightarrow t^{-1} w_j\}];$$

$$ff = f_0 + f_1 \eta[1] + f_2 \eta[2] + f_3 \eta[3];$$

$$\text{bas} = \{ff v_1, ff v_2, ff v_3, u_1^2 w_1, u_1^2 w_2, u_1, u_2, u_3, w_1, w_2, w_3\};$$