

tb[x_][UU[L_], UU[R_]] :=

CF[UU[Expand[Distribute[pp[L, R]] /. {

pp[0, _] → 0, pp[_ , 0] → 0,

pp[_β | _δβ | _c | _ao | _ca | _aao,

_β | _δβ | _c | _ao | _ca | _aao] → 0,

pp[u_β | u_δβ | u_c | u_ao | u_ca | u_aao, v_a] :=

-pp[v, u]

} /. {

pp[a[f_, x, j_], u_] := (u /. {

β[g_] := ao[f ∂_{b_x}g, x, j],

a[g_, k_, l_] := aao[f ∂_{b_x}g, x, j, k, l] +

ca[b_k f ∂_{b_x}g, l, x, j] +

Kδ_{xk} (ca[-f g - b_x g ∂_{b_x}f, j, x, l] +

ca[f g, l, x, j] + aao[-g ∂_{b_x}f, x, j,

x, l]),

_ → 0

}),

pp[a[f_, j_, k_], a[g_, x, l_]] (* /; j != x *) :=

-aao[g ∂_{b_x}f, x, l, j, k] - ca[b_j g ∂_{b_x}f, k, x, l],

pp[_ , _] → 0

}}]]];