

```

Simp[ε_] := Simplify[ε];
CF[ε_] :=

ε /. {λ_β | λ_a | λ_δβ | λ_c | λ_ao | λ_ca :> MapAt[Simp, λ, 1],
      aao[f_, i_, j_, k_, l_] :>
        aao[Simp@f, Sort[{i, k}][1], Sort[{j, l}][1],
             Sort[{i, k}][2], Sort[{j, l}][2]]];
AutoCollecting[λ_] := (λ /: λ[0, ___] = 0;
                        λ /: λ[f_, r___] + λ[g_, r___] := λ[Simp[f+g], r];
                        λ /: g_*λ[f_, r___] := λ[Simp[g f], r]);
AutoCollecting /@ {β, a, δβ, c, ao, ca, aao};
UU /: UU[x_] + UU[y_] := UU[x+y];
UU /: a_*UU[x_] := UU[Expand[a x]];
UU /: D[u_UU, vs___] :=
  CF[u /. _β | λ_a | λ_δβ | λ_c | λ_ao | λ_ca | λ_aao :>
    MapAt[D[#, vs] &, λ, 1]];
hb[f_, i_, j_, k_] := a[bjf, i, k] - a[bif, j, k]
(* = f·[aik, ajk] *);
UU /: Coefficient[u_UU, λ_[js___]] :=
  Total[Cases[u, λ[f_, js] :> f, ∞]];
Kδ /: Kδis__ := KroneckerDelta[1, Length[Union[{is}]]];

```