

Zip3_{vs_}@{ \mathcal{F}_- , $\mathcal{E}_\mathbb{E}$ } :=

PP_{zip3}@

Module[{ F , u , v , Z , $\$k$, kk , jj , $\$m = 0$, m , n },

$\$k = \text{Length}[\mathcal{E}] - 1$;

Do[$Z[0, kk] = \mathcal{E}[[kk + 1]]$, { $kk, 0, \$k$ }];

$F[u_, v_] :=$

$F[u, v] =$

CF@If[Wt[u] + Wt[v] == $\$n$, $\partial_{F[u], F[v]} \mathcal{F}$, 0];

$Z[m_, kk_, u_] := Z[m, kk, u] = D_u[Z[m, kk]]$;

$Z[m_, kk_, u_, v_] :=$

$Z[m, kk, u, v] = D_v[Z[m, kk, u]]$;

For[$m = 0, m \leq 2 \$m, ++m$,

For[$kk = 0, kk \leq \$k, ++kk$,

$Z[m + 1, kk] = \text{CF@Sum}$ [

If[$F[u, v] == 0, 0$,

$\frac{F[u, v]}{2(m + 1)}$

($Z[m, kk, u, v] +$

Sum[$Z[n, jj, u] * Z[m - n, kk - jj, v]$,
{ $n, 0, m$ }, { $jj, 0, kk$ }])

{ u, vs }, { v, vs }]

If[$Z[m + 1, kk] != 0, \$m = m + 1$

]]];

CF/@({

$\mathcal{F} - \text{Sum}[F[u, v] * F[u] * F[v] / 2, \{u, vs\},$
{ $v, vs\}]$,

$\mathbb{E} @@ \text{Table}[\text{Sum}[Z[m, kk], \{m, 0, \$m\}],$
{ $kk, 0, \$k$ }]

) /. AlsoUpper@Table[$v \rightarrow 0, \{v, vs\}]$]