

```

LZipgs_List@E[L_, Q_, P_] :=

PPLzip@Module[{ξ, z, zs, c, ys, ηs, lt, zrule, Zrule,
grule, Q1, EEQ, EQ},

zs = Table[ξ*, {ξ, ξs}];
c = L /. Alternatives @@ (ξs  $\cup$  zs)  $\rightarrow$  0;
ys = Table[ $\partial_{\xi}$  (L /. Alternatives @@ zs  $\rightarrow$  0), {ξ, ξs}];
ηs = Table[ $\partial_z$  (L /. Alternatives @@ ξs  $\rightarrow$  0), {z, zs}];
lt = Inverse@Table[K $\delta_{z,\xi}$ * -  $\partial_{z,\xi} L$ , {ξ, ξs}, {z, zs}];
zrule = Thread[zs  $\rightarrow$  lt. (zs + ys)];
Zrule =
    zrule /.
    r_Rule : $\Rightarrow$  ((U = r[[1]] /. {b  $\rightarrow$  B, t  $\rightarrow$  T, α  $\rightarrow$  A})  $\rightarrow$ 
        (U /. U21 /. r //.l2U)); (* not used *)
grule = Thread[ξs  $\rightarrow$  ξs + ηs.lt];
Q1 = Q /. U21 /. (zrule  $\cup$  grule);
EEQ[ps___] :=
EEQ[ps] =
    PP"EEQ"@
    (CF[ $e^{-Q1} D[e^{Q1}, \text{Sequence} @@\text{Thread}[\{zs, \{ps\}\}] ]$ ] /.
        Alternatives @@ zs  $\rightarrow$  0 //.l2U);
CF /@ ((*CF/*) E[
    c + ηs.lt.ys, Q1 /. Alternatives @@ zs  $\rightarrow$  0,
    Det[lt]
        (Zipgs[(EQ @@ zs) (P /. U21 /. (zrule  $\cup$  grule))] /.
            Derivative[ps___][EQ][___] : $\Rightarrow$  EEQ[ps] /.
            _EQ  $\rightarrow$  1)
    ] //.l2U)
];

```