

LZip _{ζ_s _List, simp_} @ $\mathbb{E}[L_-, Q_-, P_-]$:=

Module [{ ζ , z , zs , c , ys , ηs , lt , $zrule$, $L1$, $L2$, $Q1$, $Q2$ },

$zs = \text{Table}[\zeta^*, \{\zeta, \zeta s\}];$

$c = L /. \text{Alternatives} @@ (\zeta s \cup zs) \rightarrow \emptyset;$

$ys = \text{Table}[\partial_\zeta (L /. \text{Alternatives} @@ zs \rightarrow \emptyset), \{\zeta, \zeta s\}];$

$\eta s = \text{Table}[\partial_z (L /. \text{Alternatives} @@ \zeta s \rightarrow \emptyset), \{z, zs\}];$

$lt = \text{Inverse}@\text{Table}[K\delta_{z, \zeta^*} - \partial_{z, \zeta} L, \{\zeta, \zeta s\}, \{z, zs\}];$

$zrule = \text{Thread}[zs \rightarrow lt.(zs + ys)];$

$L2 = (L1 = c + \eta s.zs /. zrule) /. \text{Alternatives} @@ zs \rightarrow \emptyset;$

$Q2 = (Q1 = Q /. \mathbf{U21} /. zrule) /. \text{Alternatives} @@ zs \rightarrow \emptyset;$

$simp /@$

$\mathbb{E}[L2, Q2, \text{Det}[lt]] e^{-L2-Q2}$

$\text{Zip}_{\zeta s} [e^{L1+Q1} (P /. \mathbf{U21} /. zrule)] // \mathbf{12U}];$

LZip _{ζ_s _List} := **LZip** _{ζ_s , CF};