

**LZip** $_{\zeta_s \text{ List}} @ \mathbb{E} [L_-, Q_-, P_-] :=$

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Module [ {  $\zeta$ ,  $z$ ,  $zs$ ,  $c$ ,  $ys$ ,  $\eta s$ ,  $lt$ ,  $zrule$ ,  $L1$ ,  $L2$ ,  $Q1$ ,  $Q2$  },  
   $zs = \text{Table} [\zeta^*, \{ \zeta, \zeta s \} ] ;$   
   $c = L /. \text{Alternatives} @@ (\zeta s \cup zs) \rightarrow \emptyset ;$   
   $ys = \text{Table} [\partial_{\zeta} (L /. \text{Alternatives} @@ zs \rightarrow \emptyset), \{ \zeta, \zeta s \} ] ;$   
   $\eta s = \text{Table} [\partial_z (L /. \text{Alternatives} @@ \zeta s \rightarrow \emptyset), \{ z, zs \} ] ;$   
   $lt = \text{Inverse} @ \text{Table} [K \delta_{z, \zeta^*} - \partial_{z, \zeta} L, \{ \zeta, \zeta s \}, \{ z, zs \} ] ;$   
   $zrule = \text{Thread} [zs \rightarrow lt. (zs + ys) ] ;$   
   $L2 = (L1 = c + \eta s.zs /. zrule) /. \text{Alternatives} @@ zs \rightarrow \emptyset ;$   
   $Q2 = (Q1 = Q /. U21 /. zrule) /. \text{Alternatives} @@ zs \rightarrow \emptyset ;$   
   $CF /@ \mathbb{E} [L2, Q2, \text{Det} [lt] e^{-L2-Q2}$   
     $\text{Zip}_{\zeta s} [e^{L1+Q1} (P /. U21 /. zrule) ] ] // . 12U ] ;$ 
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