

$LZip_{\zeta_s List} @ \mathbb{E} [L_-, Q_-, P_-] :=$

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