

$\text{LZip}_{\mathcal{G}_S_List} @ \mathbb{E} [L_ , Q_ , P_] :=$

$\text{PP}_{\text{LZip}} @ \text{Module} [\{ \mathcal{L}, z, z_s, Z_s, c, y_s, \eta_s, \text{lt}, \text{zrule},$

$\text{Zrule}, \mathcal{G}\text{rule}, Q_1, \text{EEQ}, \text{EQ} \},$

$z_s = \text{Table} [\mathcal{L}^*, \{ \mathcal{L}, \mathcal{G}_S \}] ;$

$Z_s = z_s /. \{ b \rightarrow B, t \rightarrow T, \alpha \rightarrow \mathcal{A} \} ;$

$c = L /. \text{Alternatives} @@ (\mathcal{G}_S \cup z_s) \rightarrow \emptyset ;$

$y_s = \text{Table} [\partial_{\mathcal{L}} (L /. \text{Alternatives} @@ z_s \rightarrow \emptyset), \{ \mathcal{L}, \mathcal{G}_S \}] ;$

$\eta_s = \text{Table} [\partial_z (L /. \text{Alternatives} @@ \mathcal{G}_S \rightarrow \emptyset), \{ z, z_s \}] ;$

$\text{lt} = \text{Inverse} @ \text{Table} [K \delta_{z, \mathcal{L}^*} - \partial_{z, \mathcal{L}} L, \{ \mathcal{L}, \mathcal{G}_S \}, \{ z, z_s \}] ;$

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

$\text{Zrule} = \text{Join} [\text{zrule},$

$\text{zrule} /.$

$r_Rule \Rightarrow ((U = r[[1]] /. \{ b \rightarrow B, t \rightarrow T, \alpha \rightarrow \mathcal{A} \}) \rightarrow$

$(U /. U21 /. r // . 12U))] ;$

$\mathcal{G}\text{rule} = \text{Thread} [\mathcal{G}_S \rightarrow \mathcal{G}_S + \eta_s . \text{lt}] ;$

$Q_1 = Q /. (\text{Zrule} \cup \mathcal{G}\text{rule}) ;$

$\text{EEQ}[ps_] :=$

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$\text{PP}^{\text{EEQ}} @ (\text{CF} [e^{-Q_1} D_{\text{Thread}[\{z_s, \{ps\}\}]} [e^{Q_1}]] /.$

$\{ \text{Alternatives} @@ z_s \rightarrow \emptyset, \text{Alternatives} @@ Z_s \rightarrow 1 \}) ;$

$\text{CF} @ \mathbb{E} [c + \eta_s . \text{lt} . y_s,$

$Q_1 /. \{ \text{Alternatives} @@ z_s \rightarrow \emptyset, \text{Alternatives} @@ Z_s \rightarrow 1 \},$

$\text{Det} [\text{lt}]$

$(\text{Zip}_{\mathcal{G}_S} [(\text{EQ} @@ z_s) (P /. (\text{Zrule} \cup \mathcal{G}\text{rule}))] /.$

$\text{Derivative} [ps_] [\text{EQ}] [_] \Rightarrow \text{EEQ}[ps] /.$

$_EQ \rightarrow 1)]] ;$