

Pensieve header: μ -calculus clippings - not to be executed.

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hta[x_, y_, z_][ $\lambda[\omega_, \mu_]$ ] := Module[{ $\mu x$ , Ad $\mu x$ },
   $\mu x$  = MakeLieSeries[D[ $\mu$ , h[x]]];
  Ad $\mu x$  = LieMorphism[{LW[y]  $\rightarrow$  Ad[ScaleLieSeries[-1,  $\mu x$ ]][LW[z]]}];
   $\lambda$ [
    AddCWSeries[StableApply[Ad $\mu x$ ,  $\omega$ ], J[LW[y],  $\mu x$ ]],
    Collect[ $\mu$ , _h, StableApply[Ad $\mu x$ , #] &]
  ]
];
hta[x_, y_][ $\lambda[\omega_, \mu_]$ ] :=
   $\lambda[\omega, \mu]$  // hta[x, y, <"z">] // LieMorphism[{LW["z"]  $\rightarrow$  LW[y]}];
dm[x_, y_, z_][ $\lambda_$ ] :=  $\lambda$  // hta[y, x] // tm[x, y, z] // hm[x, y, z];
Ad[x_] := adSeries[E^(-ad), x];
J[-1, ___] = MakeCWSeries[0];
J[n_, y_LW,  $\mu$ _LieSeries, s_] := J[n, y,  $\mu$ , s] = Module[
  {s $\mu$ ,  $\mu s$ },
  s $\mu$  = ScaleLieSeries[s,  $\mu$ ];
   $\mu s$  = StableApply[LieMorphism[{y  $\rightarrow$  Ad[ScaleLieSeries[-1, s $\mu$ ]][LW[z]]}],  $\mu$ ];
   $\mu s$  =  $\mu s$  // LieMorphism[{LW[z]  $\rightarrow$  y}];
  IntegrateCWSeries[
    AddCWSeries[
      J[n-1, y,  $\mu$ , s] // LieDerivation[{y  $\rightarrow$  b[ $\mu s$ , y]}],
      div[y,  $\mu s$ ]
    ],
    {s, 0, s}
  ]
];
J[y_LW,  $\mu$ _LieSeries] := J[y,  $\mu$ ] = Module[{cws, s},
  cws = Unique[J];
  cws[] = Hold[J[y,  $\mu$ ]];
  cws[d_Integer] := cws[d] = J[d-1, y,  $\mu$ , s][d] /. s  $\rightarrow$  1;
  CWSeries[cws]
];

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