

```

ct[s_] := ct[s, s]; ct[] = ct[0, 0];
ct[h_, t_][UU[L_], UU[R_]] := CF[UU[Distribute[pp[L, R]] /. {
  pp[_β | _δβ, _] → 0,
  pp[a[f_, i_, h], β[g_]] := β[f b_i ((∂_{b_t} g) /. b_t → 0)],
  pp[a[f_, i_, h], a[g_, t, j_]] := a[f (g /. b_t → 0), i, j],
  pp[a[f_, i_, h], a[g_, j_, k_]] := a[f b_i ((∂_{b_t} g) /. b_t → 0), j, k],
  pp[a[f_, i_, h], δa[g_, t, j_]] := δa[f (g /. b_t → 0), i, j],
  pp[a[f_, i_, h], δa[g_, j_, k_]] := δa[f b_i ((∂_{b_t} g) /. b_t → 0), j, k],
  pp[a[f_, i_, h], δaa[g_, t, j_, t, k_]] → 0,
  pp[a[f_, i_, h], δaa[g_, t, j_, k_, l_]] := δaa[f (g /. b_t → 0), i, j, k, l],
  pp[a[f_, i_, h], δaa[g_, j_, k_, t, l_]] := δaa[f (g /. b_t → 0), j, k, i, l],
  pp[a[f_, i_, h], δaa[g_, j_, k_, l_, m_]] := δaa[f b_i ((∂_{b_t} g) /. b_t → 0), j, k, l, m],
  pp[a[_], _] → 0, pp[_δa | _δaa, _δβ | _δa | _δaa] → 0,
  pp[δa[f_, i_, h], β[g_]] := δβ[f b_i ((∂_{b_t} g) /. b_t → 0)],
  pp[δa[f_, i_, h], a[g_, t, j_]] := δa[f (g /. b_t → 0), i, j],
  pp[δa[f_, i_, h], a[g_, j_, k_]] := δa[f b_i ((∂_{b_t} g) /. b_t → 0), j, k],
  pp[_δa, _] → 0, pp[δaa[_ , _ , h, _ , h], _] → 0,
  pp[δaa[f_, i_, h, j_, k_], β[g_]] := δa[f b_i ((∂_{b_t} g) /. b_t → 0), j, k],
  pp[δaa[f_, i_, h, j_, k_], a[g_, t, l_]] := δaa[f (g /. b_t → 0), i, l, j, k],
  pp[δaa[f_, i_, h, j_, k_], a[g_, l_, m_]] := δaa[f b_i ((∂_{b_t} g) /. b_t → 0), j, k, l, m],
  pp[δaa[f_, i_, j_, k_, h], β[g_]] := δa[f b_k ((∂_{b_t} g) /. b_t → 0), i, j],
  pp[δaa[f_, i_, j_, k_, h], a[g_, t, l_]] := δaa[f (g /. b_t → 0), i, j, k, l],
  pp[δaa[f_, i_, j_, k_, h], a[g_, l_, m_]] := δaa[f b_k ((∂_{b_t} g) /. b_t → 0), i, j, l, m],
  pp[_δaa, _] → 0 }]]];

```