

```

TL [x : X [i_, j_, k_, l_]] :=
  TL@If [PositiveQ [x], X_{-i,j,k,-l}, \bar{X}_{-j,k,l,-i}];
TL [(x : X | \bar{X})_{fs__}] := Module [{t = 1 - \omega, r, \gamma S, m},
  r = t + t^*; \gamma S = \gamma_{\#} & /@ {fs};
  m = If [x === X,
    \left( \begin{array}{cccc} -r & -t & 2t & t^* \\ -t^* & 0 & t^* & 0 \\ 2t^* & t & -r & -t^* \\ t & 0 & -t & 0 \end{array} \right), \left( \begin{array}{cccc} r & -t & -2t^* & t^* \\ -t^* & 0 & t^* & 0 \\ -2t & t & r & -t^* \\ t & 0 & -t & 0 \end{array} \right)];
  CF@Sigma_B[{{fs}}] [0, PQ[{}, \gamma S^* . m . \gamma S]]]

```