Generating diagrams in just a few lines – aren't there any strings attached?

Yes, one has to set up, once and for all, a MODEL FILE containing the couplings.

E.g. the SFF coupling is declared by

- in the Generic model file:

```
AnalyticalCoupling[ s1 F[i, mom1], s2 F[j, mom2],
  s3 S[k, mom3] ] ==
   G[1][ s1 F[i], s2 F[j], s3 S[k] ] .
    { NonCommutative[ ChiralityProjector[-1] ],
      NonCommutative[ ChiralityProjector[+1] ] }
```

coupling vector

kinematic vector

- in the Classes model file (here for $\overline{\ell}_{j_2}\nu_{j_1}\phi^-$):

```
C[ -F[2, {j2}], F[1, {j1}], S[3] ] ==
  -I EL/(Sqrt[2] SW) Mass[F[2, {j2}]]/MW *
  IndexDelta[j1, j2] *
  { {1, dZe1 - dSW1/SW + dMWsq1/(2 MW^2) +
        dMf1[2, {j2}]/Mass[F[2, {j2}]] -
        1/2 (Conjugate[dZfR1[2, {j2}]] +
          dZfL1[1, {j1}]) },
    {0, 0} }
```

tree-level coupling

counter term

neutrinos have no right-handed coupling