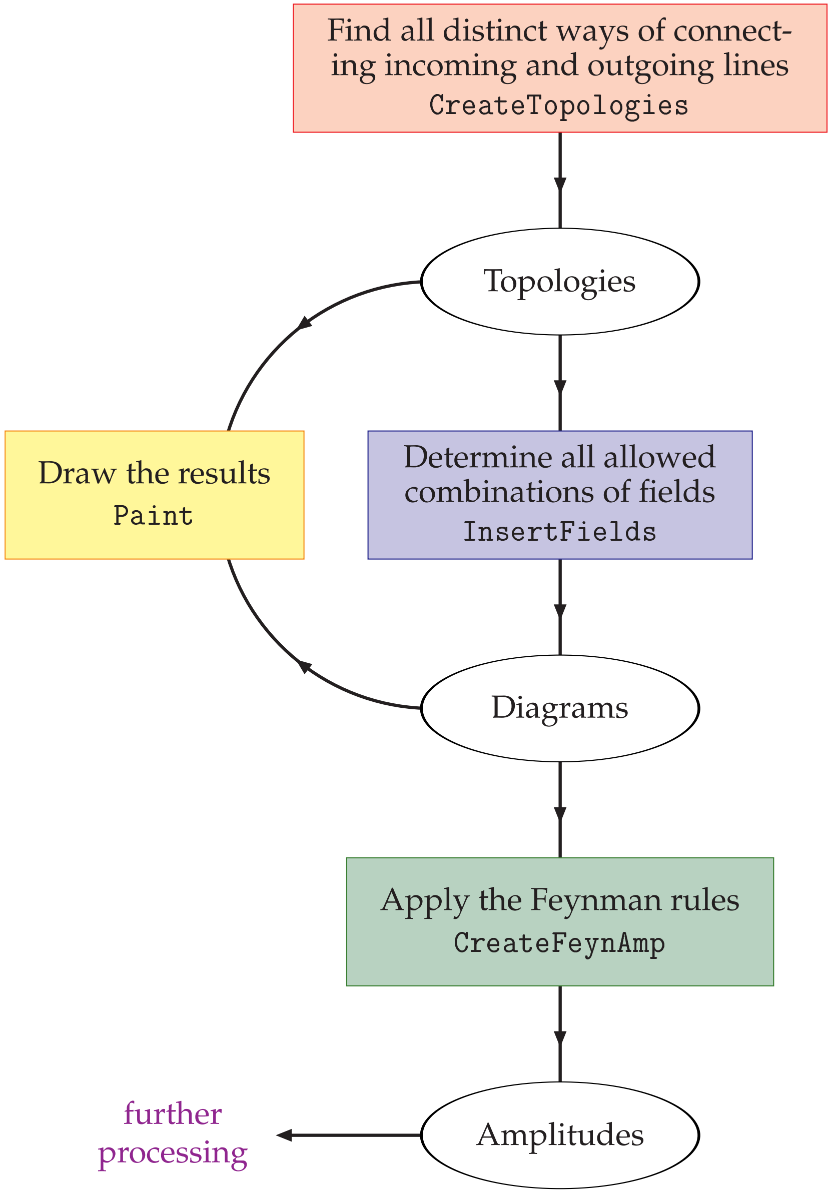
Thomas Hahn: Automatic Loop Calculations in the SM and MSSM with FeynArts, FormCalc, and LoopTools.
Talk given at Wolfram Research, Inc., September 2000.

FeynArts



EXAMPLE: generating the Higgs self-energy

```
top = CreateTopologies[ 1, 1 -> 1 ]
```

one loop

one incoming particle

one outgoing particle

```
Paint[top]
```

```
ins = InsertFields[ top, S[1] -> S[1],
         Model -> SM ]
```

use the Standard Model

the name of the Higgs boson in the “SM” model file

```
Paint[ins]
```

```
amp = CreateFeynAmp[ins]
```

```
amp >> HiggsSelfEnergy.amp
```