

Dear All,

Second, let me introduce the **FeynRules download and a procedure** that is better to do beforehand.

FeynRules, you can put Beyond the SM Lagrangian that you like. From the output file, you can enjoy that Lagrangian for MadGraph and CalcHep, etc.

You need to have an **editor** that you edit the file and **Mathematica**.

1) Download

For FeynRules, you can download it from:

<https://feynrules.irmp.ucl.ac.be/>

and untar and unzip it.

Check for running:

2)

go to the SM:

`"/Users/kimiko-y/TOOL/feynrules-current/Models/SM"`

and

copy "SM.nb" (I copied and renamed to SM_test.nb)

3)

open "SM_test.nb" with Mathematica.

check whether you can call FeynRules.

Better to check running to `LoadModel["SM.fr"]`

In my case:

```
In[ ]:= Quit[]
|終了

In[1]:= $FeynRulesPath = SetDirectory["/Users/kimiko-y/TOOL/feynrules-current"]
|ディレクトリの設定

Out[1]:= /Users/kimiko-y/TOOL/feynrules-current

In[2]:= << FeynRules`
- FeynRules -
Version: 2.3.49 (29 September 2021).
Authors: A. Alloul, N. Christensen, C. Degrande, C. Duhr, B. Fuks

Please cite:
- Comput.Phys.Commun.185:2250-2300,2014 (arXiv:1310.1921);
- Comput.Phys.Commun.180:1614-1641,2009 (arXiv:0806.4194).

http://feynrules.phys.ucl.ac.be

The FeynRules palette can be opened using the command FRPalette[].

In[3]:= SetDirectory[$FeynRulesPath <> "/Models/SM"];
|ディレクトリの設定
```

The Standard Model

We first load in the Standard Model model-file

```
In[4]:= LoadModel["SM.fr"]
This model implementation was created by
```

Please let us know if you are stuck some points. If may be useful info. for everyone.

Thank you very much.

Best regards,

Kimiko