## Markdown to Jupyter notebook example

Here is a SugarTeX example with eq. 1 and fig. 1.

See PDF of this source if you do not have excellent Unicode support.

$$\nabla \times \mathbf{B} - \frac{1}{c} \frac{\partial \mathbf{E}}{\partial t} = \frac{4\pi}{c} \mathbf{j}$$

$$\nabla \cdot \mathbf{E} = 4\pi \rho$$

$$\nabla \times \mathbf{E} + \frac{1}{c} \frac{\partial \mathbf{B}}{\partial t} = \mathbf{0}$$

$$\nabla \cdot \mathbf{B} = 0$$
(1)

where  $\mathbf{B},\,\mathbf{E},\,\mathbf{j}:\,\mathbb{R}^4 o\mathbb{R}^3$  – vector functions of the form  $(t,x,y,z)\mapsto \mathbf{f}(t,x,y,z),\,\mathbf{f}=(f_{\mathrm{x}},f_{\mathrm{y}},f_{\mathrm{z}})\,.$ 



Figure 1: Sample image with cross-references.

In this version of Pandoc image caption fig. 1 works.

```
from IPython.display import Markdown
import pandas as pd
import numpy as np
import tabulatehelper as th

df = pd.DataFrame(np.random.random(16).reshape(4, 4))

Markdown(f'''
{th.md_table(df)}
: Table {{#tbl:table1}}
'''')
```

Table 1: Table

0	1	2	3
0.356822	0.850853	0.942869	0.661828
0.531436	0.401689	0.233386	0.0750746
0.611059	0.339632	0.119429	0.525586
0.427983	0.971175	0.685818	0.83593

## Text and tbl. 1

```
import pandas as pd
import numpy as np
df = pd.DataFrame(np.random.random(16).reshape(4, 4))
df
```

```
# R cell:
x <- c(10, 20)
x[1]
```

## Header

```
x <- c(10, 20)
x[1]
```

10

```
import math  \label{eq:markdown} $$\operatorname{Markdown}(f''' \mbox{ Markdown text with SugarTeX formula: $$$\alpha^{\mbox{\sc math.pi:1.3f}}_{\mbox{\sc math.pi:
```

Markdown text with SugarTeX formula:  $\alpha^{3.142}$ . It works because of the Markdown display option and SugarTeX Pandoc filter.

```
print('Hello!')
```