## 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.

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

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

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

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

where B, E, j:  $R^4 \rightarrow R^3$  – vector functions of the form  $(t, x, y, z) \mapsto f(t, x, y, z)$ ,  $f = (f_x, f_y, f_z)$ .



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
0.129787	0.779166	0.40653	0.350694
0.142017	0.205867	0.643412	0.539528
0.0461316	0.856536	0.836548	0.0438633
0.519267	0.706961	0.491381	0.0278096

## 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]
```

10

## Header

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

10

```
import math
Markdown(f'''
Markdown text with SugarTeX formula: $\alpha^{\text{math.pi:1.3f}},$.
It works because of the Markdown display option and
SugarTeX Pandoc filter.
'''')
```

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

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