

# Markdown to Jupyter notebook example

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

See [PDF of this source](#) if you do not have [excellent Unicode support](#).

$$\begin{aligned}\nabla \times \mathbf{B} - \frac{1}{c} \frac{\partial \mathbf{E}}{\partial t} &= \frac{4\pi}{c} \mathbf{j} \\ \nabla \cdot \mathbf{E} &= 4\pi \rho \\ \nabla \times \mathbf{E} + \frac{1}{c} \frac{\partial \mathbf{B}}{\partial t} &= \mathbf{0} \\ \nabla \cdot \mathbf{B} &= 0\end{aligned}, \quad (1)$$

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



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
0.711496	0.610685	0.5417	0.422664
0.302114	0.929441	0.357531	0.0672426
0.862605	0.632082	0.782948	0.400227
0.386289	0.775271	0.923386	0.647923

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

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

10

```
import math  
Markdown(f'''  
Markdown text with SugarTeX formula:  $\alpha^{\pi:1.3f}$ $.  
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!')
```