A second example with MathJax activated (and the paper theme)

To know how to include MathJax in a StrapDown-flavored HTML page, you can read this example 3.
To discover an even nicer way to import MathJax, read the last example.

These examples are directly imported from the samples from the mathjax.org website.

The following equations are included in the HTML source code as **pure LaTeX code**.

The Lorenz Equations

The previous equation corresponds to the following code, inserted verbatim in the Markdown part of this page (ie. after the opening `xmp` tag and before its closing) : `latex`

$$\dot{x} = \sigma(y - x)$$

$$\{ \dot{y} = \rho x - y - xz$$

$$\dot{z} = -\beta z + xy$$

The Cauchy-Schwarz Inequality (in $\mathbb{R}^n$)

$$\left(\sum_{k=1}^{n} a_k b_k \right)^2 \leqslant \left(\sum_{k=1}^{n} a_k^2 \right) \left(\sum_{k=1}^{n} b_k^2 \right)$$

The previous equation corresponds to the following code, inserted verbatim in the Markdown part of this page : `latex`

$$\left(\sum_{k=1}^{n} a\_k b\_k \right)^2 \leqslant \left(\sum_{k=1}^{n} a\_k^2 \right) \left(\sum_{k=1}^{n} b\_k^2 \right)$$

A Cross Product Formula

$$\mathbf{V}_1 \times \mathbf{V}_2 = \begin{vmatrix} \mathbf{i} & \mathbf{j} & \mathbf{k} \\ \frac{\partial X}{\partial u} & \frac{\partial Y}{\partial u} & 0 \\ \frac{\partial X}{\partial v} & \frac{\partial Y}{\partial v} & 0 \end{vmatrix}$$

The previous equation corresponds to the following code, inserted verbatim in the Markdown part of this page : `latex`

$$\mathbf{V\_}1 \times \mathbf{V\_}2 = \begin{vmatrix} \mathbf{i} & \mathbf{j} & \mathbf{k} \\ \frac{\partial X}{\partial u} & \frac{\partial Y}{\partial u} & 0 \\ \frac{\partial X}{\partial v} & \frac{\partial Y}{\partial v} & 0 \end{vmatrix}$$

The probability of getting k heads when flipping n coins is

$$P(E) = \binom{n}{k} p^k (1-p)^{n-k}$$

The previous equation corresponds to the following code, inserted verbatim in the Markdown part of this page : `latex`

$$P(E) = \binom{n}{k} p^k (1-p)^{n-k}$$

An Identity of Ramanujan (obviously)

$$\frac{1}{\left(\sqrt{\phi\sqrt{5}} - \phi\right) e^{\frac{2}{5}\pi}} = 1 + \frac{e^{-2\pi}}{1 + \frac{e^{-4\pi}}{1 + \frac{e^{-6\pi}}{1 + \frac{e^{-8\pi}}{1 + \ldots}}}}$$

The previous equation corresponds to the following code, inserted verbatim in the Markdown part of this page : `latex`

$$\frac{1}{\left(\sqrt{\phi\sqrt{5}} - \phi\right) e^{\frac{2}{5}\pi}} = 1 + \frac{e^{-2\pi}}{1 + \frac{e^{-4\pi}}{1 + \frac{e^{-6\pi}}{1 + \frac{e^{-8\pi}}{1 + \ldots}}}}$$

A Rogers-Ramanujan Identity

$$1 + \frac{q^2}{(1-q)} + \frac{q^6}{(1-q)(1-q^2)} + \cdots = \prod_{j=0}^{\infty} \frac{1}{(1-q^{5j+2})(1-q^{5j+3})}, \qquad \textbf{for } |q| < 1.$$

The previous equation corresponds to the following code, inserted verbatim in the Markdown part of this page : `latex`

$$1 + \frac{q^2}{(1-q)} + \frac{q^6}{(1-q)(1-q^2)} + \cdots = \prod_{j=0}^{\infty} \frac{1}{(1-q^{5j+2})(1-q^{5j+3})}, \qquad \texttt{for } |q|lt;1.$$

Maxwell's Equations

The previous equation corresponds to the following code, inserted verbatim in the Markdown part of this page : `latex`

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

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

$$\{$$

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

$$\nabla \cdot \vec{\mathbf{B}} = 0$$

As you can see, math environment (like `aligned`) are supported by MathJax, even with the default configuration and no external plugins.

Inline equations are also supported.

Finally, while **display equations** look good for a page of samples, the ability to mix math and text in a paragraph is also important. This expression $\sqrt{3x - 1} + (1 + x)^2$ is an example of an **inline equation** (inserted with the code $\sqrt{3x - 1} + (1 + x)^2$). As you see, MathJax equations can be used this way as well, without unduly disturbing the spacing between lines.

End of the examples

That's all for today !

(Compiled to **PDF** from a `HTML/Markdown` file (powered by `StrapDown.js`) with **strapdown2pdf**, `v0.9`.)