A third example with MathJax activacted

This StrapDown-flavored HTML page comes with MathJax enabled, simply because **we asked the script to do so**.

The last line of this page source (you can read it with « Ctrl+u » in Firefox) imports the script `strapdown.min.js` with this URL : « `strapdown.min.js?src=example5mathjax=ytheme=unitedbeacon=y` ».

This way, some options are avaible:

1. `mathjax=y` if you want to load MathJax, with
   $being the default separator for inline maths and for display$, `theme=united` or `theme=united` $if you want to load a specific them$

2. `beacon=y` if you want to include an invisible GA Beacon image in your page.

These examples are the same as the previous example 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 $\mathbb{R}^n$)

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

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

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

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!