Příklady zápisu rovnic v LaTexu

Následující rovnice byly do textu vloženy jako obrázky generované v online editoru:
http://www.codecogs.com/latex/eqneditor.php
Obrázky vždy ukládejte jako SVG (vektorová grafika). V tomto formátu obrázek neztrácí na kvalitě při zvětšování ani při exportu dokumentu do PDF.

$$\mathrm{rot}\vec{E} = -\frac{\partial \vec{B}}{\partial t}$$

```
\mbox{rot}\vec{E} = -\frac{{\partial}{\vec{B}}}{\partial t}
```

$$\mathrm{rot}\vec{H} = \vec{\jmath} + \frac{\partial \vec{D}}{\partial t}$$

```
\mbox{rot}\vec{H} = \vec{\jmath}+\frac{{\partial}{\vec{D}}}{\partial t}
```

$$\mathrm{div}\vec{D} = \rho$$

```
\mbox{div}\vec{D} = \rho
```

$$\mathrm{div}\vec{B} = 0$$

```
\mbox{div}\vec{B} = 0
```

$$\nabla = \left(\frac{\partial}{\partial x}, \frac{\partial}{\partial y}, \frac{\partial}{\partial z} \right)$$

```
\nabla = \left( {\partial\over\partial x}\, , {\partial\over\partial y}\, , {\partial\over\partial z} \right)
```

$$\mathrm{grad}\,\varphi = \frac{\partial \varphi}{\partial x}\,\vec{\imath} + \frac{\partial \varphi}{\partial y}\,\vec{\jmath} + \frac{\partial \varphi}{\partial z}\,\vec{k}$$

```
{\rm grad}\,\varphi = {\partial\varphi\over\partial x}\,\vec{\imath} + {\partial\varphi\over\partial y}\,\vec{\jmath} + {\partial\varphi\over\partial z}\,\vec{k}
```

$$\left|\mathrm{grad}\,\varphi\right| = \left[\left(\frac{\partial \varphi}{\partial x} \right)^2 + \left(\frac{\partial \varphi}{\partial y} \right)^2 + \left(\frac{\partial \varphi}{\partial z} \right)^2 \right]^{\frac{1}{2}}$$

```
\left|{\rm grad}\,\varphi\right| = \left[\left({\partial\varphi\over\partial x}\right)^{2} + \left({\partial\varphi\over\partial y}\right)^{2} + \left({\partial\varphi\over\partial z}\right)^{2}\right]^{\frac{1}{2}}
```

$$\oint\limits_l \vec{a}\,\mathrm{d}\vec{l} = \oint\limits_l \left(a_\mathrm{x}\,\mathrm{d}x + a_\mathrm{y}\,\mathrm{d}y + a_\mathrm{z}\,\mathrm{d}z\right)$$

```
\oint\limits_{l}\vec{a}\:{\rm d}\vec{l} =\oint\limits_{l}\left( a_{\rm x}\,{\rm d}x + a_{\rm y}\,{\rm d}y + a_{\rm z}\,{\rm d}z\right)
```

$$\oint\limits_{l} \vec{a}\,\mathrm{d}\vec{l} = \iint\limits_{S} \operatorname{rot}\vec{a}\,\mathrm{d}\vec{S}$$

\oint\limits_{l}\vec{a}\,: {\rm d}\vec{l} =\iint\limits_{S}{\rm rot}\,\vec a\,: {\rm d}\vec{S}

$$\operatorname{rot}\vec{a} = \begin{vmatrix} \vec{\imath} & \vec{\jmath} & \vec{k} \\ \frac{\partial}{\partial x} & \frac{\partial}{\partial y} & \frac{\partial}{\partial z} \\ a_\mathrm{x} & a_\mathrm{y} & a_\mathrm{z} \end{vmatrix}$$

{\rm rot}\,\vec{a} = \begin{vmatrix}
\vec{\imath} & \vec{\jmath} & \vec{k}\\
{\partial\over\partial x} & {\partial\over\partial y} & {\partial\over\partial z}\\
a_{\rm x} & a_{\rm y} & a_{\rm z}
\end{vmatrix}

$$T_\mathrm{L} = T_0 + u\cos\left(\frac{2\pi}{365}N\right) + v\sin\left(\frac{2\pi}{365}N\right)$$

T_{\rm{L}}= T_{0} + u \cos \left(\frac{2\pi}{365} N \right) + v \sin \left(\frac{2\pi}{365} N \right)

$$T_\mathrm{L} = \frac{\ln I_0 - \ln I_\mathrm{Pn}}{\ln I_0 - \ln I_\check{\mathrm{c}}}$$

T_{\rm{L}}=\frac{\ln I_{\rm{0}} - \ln I_{\rm{Pn}}}{\ln I_{\rm{0}} - \ln I_{\rm{\check{c}}}}

$$\delta_\mathrm{R} = -\frac{1}{m}\cdot\ln\frac{I_\mathrm{\check{c}}}{I_0}$$

\delta_{\rm{R}} = - \frac{1}{m}\cdot\ln\frac{I_{\rm{\check{c}}}}{I_{\rm{0}}}

$$\Delta = 23{,}45^\circ \sin\left(0{,}98^\circ D + 29{,}7^\circ M - 109^\circ\right)$$

\Delta=23{,}45^{\circ} \sin\left(0{,}98^{\circ} D + 29{,}7^{\circ} M - 109^{\circ} \right)

$$I_\mathrm{sol} = 1\,367{,}13\ \mathrm{Wm}^2$$

I_{\rm{sol}}=1\,367{,}13 \; \mbox{Wm}^{2}

$$I_\mathrm{Gh} = \left(1297 - 57\,T_{\mathrm{L}(2)}\right)\left(\sin h\right)^{\frac{36+T_{\mathrm{L}(2)}}{33}}$$

I_{\rm{Gh}} = \left(1297 - 57\,T_{\rm{L}(2)}\right) {\left(\sin{h} \right)}^{\frac{36 + T_{\rm{L}(2)}}{33}}

$$m_\mathrm{KY} = \frac{p/p_0}{\cos\theta + 0{,}505\,72\ (96{,}079\,95 - \theta)^{-1{,}636\,4}}$$

m_{\rm{KY}}=\frac{p/p_{0}}{\cos{\theta}+0{,}505\,72\,\left(96{,}079\,95-\theta \right)^{-1{,}636\,4}}