See eq. 1.

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

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

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

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

where $\mathbf{B}, \mathbf{E}, \mathbf{j}: \mathbb{R}^4 \to \mathbb{R}^3$ – vector functions of the form $(t, x, y, z) \mapsto \mathbf{f}(t, x, y, z), \mathbf{f} = (f_{\mathrm{x}}, f_{\mathrm{y}}, f_{\mathrm{z}}).$

where \Bar{B} , \Bar{F} , \Bar{J} : $\Bar{R}^4 \to \Bar{R}^3$ — vector functions of the form $\((t,x,y,z) \mapsto f(t,x,y,z), f = (f_'x', f_'y', f_'z')\$.

See eq. 2.

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

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

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

$$\nabla \cdot \mathbf{B} = 0$$
(2)

where $\mathbf{B},\mathbf{E},\mathbf{j}:\mathbb{R}^4 \to \mathbb{R}^3$ – vector functions of the form $(t,x,y,z)\mapsto \mathbf{f}(t,x,y,z),\,\mathbf{f}=(f_{\mathrm{x}},f_{\mathrm{y}},f_{\mathrm{z}}).$

```
 \begin{bmatrix} "A \end{bmatrix} = \begin{bmatrix} "B \end{bmatrix}^{r + r} \begin{bmatrix} "C \end{bmatrix} \begin{bmatrix} "B \end{bmatrix} 
 A = B^{r + r} C B
```

$$\mathbf{A} = \mathbf{B}^{\mathrm{T}} \mathbf{C} \, \mathbf{B}$$
$$\mathbf{A} = \mathbf{B}^{\mathrm{T}} \mathbf{C} \, \mathbf{B}$$

```
 \begin{bmatrix} X_{11} & X_{12} & X_{13} & \dots & X_{1n} & \vdots \\ X_{21} & X_{22} & X_{23} & \dots & X_{2n} & \vdots \\ \vdots & \vdots & \vdots & \ddots & \vdots & \vdots \\ X_{p1} & X_{p2} & X_{p3} & \dots & X_{pn} \end{bmatrix}
```

```
egin{bmatrix} x_{11} & x_{12} & x_{13} & \dots & x_{1n} \ x_{21} & x_{22} & x_{23} & \dots & x_{2n} \ dots & dots & dots & dots \ x_{p1} & x_{p2} & x_{p3} & \dots & x_{pn} \end{bmatrix}
```

$$egin{bmatrix} ax_0+by_1\ ax_1+by_2\ dots\ ax_{N-1}+by_{N-1} \end{bmatrix} = a\mathbf{x}+b\mathbf{y}$$

$$|x|=egin{cases} x & ext{if } x\geq 0 \ -x & ext{if } x<0 \end{cases}$$
 boole $(x)=egin{cases} 1 & ext{if } x ext{ is True} \ 0 & ext{if } x ext{ is False} \end{cases}$

$$\lim_{x o 0}rac{\sin x}{x}=1$$
 $U_{\delta_1
ho_2}^{eta_1lpha_2}$ $\sqrt{x}=1+rac{x-1}{2+rac{x-1}{2+rac{x-1}{2+rac{x}{2+rac{2+rac{x}{2+rac{x}{2+rac{x}{2+rich}}}{2+rich}}}{2+rich}}}{2+rich}}}}}}}}}}}}}}}}}}}$

$$\sin^2 \ddot{x} + \cos^2 \ddot{x} = 1$$

$$(x + y)^{2} = \sum_{k=0}^{\infty} (n + k) x^{n-k} y^{k}$$

$$(n + k) = (n + k), ($$

$$egin{aligned} rac{lpha_2^3}{\sqrt[3]{eta_2^2+\gamma_2^2}}\ &(x+y)^2=\sum_{k=0}^{\infty}inom{n}{k}x^{n-k}y^k\ &inom{n}{k}=inom{n}{k}, &inom{n}{k} \end{aligned}$$

$$\sum_{\substack{x+\ldots+x \ 4}}^{k ext{ times}} rac{xd^2}{4} rac{1}{(A+B)^2} = rac{\pi d^2}{4} rac{1}{(A+B)^2}$$
 $\sum_{\substack{0\leq i\leq N \ 0\leq j\leq M}}^n (ij)^2 + \sum_{\substack{i\in A \ 0\leq j\leq M}}^n (ij)^2$

$$\operatorname{erf}(x) = rac{1}{\sqrt{\pi}} \int_{-x}^{x} e^{-t^2} dt$$

$$f^{(2)}(0)=f''(0)=rac{d^2f}{dx^2}igg|_{x=0}$$

Text $\begin{pmatrix} a & b \\ c & d \end{pmatrix}$ and some more text.

prefix unary operator → :

(, f: x → \{ (arrow map) } _i x² (,

$$f: x \xrightarrow[i]{\operatorname{arrow\,map}} x^2$$

center binary operator □:

```
(, f: x → 「<arrow map> _i x² (,
```

$$f: x \stackrel{ ext{arrow map}}{ op} x^2$$

bug because styles also implemented as prefix unary operators (but by design styles should have priority!):

```
(, f: x → arrow map) _i x² (,
```

$$f: x \xrightarrow{`arrow} map > x^2$$