See eq. 1.

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

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

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

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

$$(1)$$

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

```
 \begin{bmatrix} : A \end{bmatrix} = \begin{bmatrix} : B \end{bmatrix}^{rT_1} \begin{bmatrix} : C \end{bmatrix} \begin{bmatrix} : B \end{bmatrix} 
 \begin{bmatrix} X_{11} & X_{12} & X_{13} & \dots & X_{1n} \end{bmatrix}^{r} 
 X_{21} & X_{22} & X_{23} & \dots & X_{2n} \end{bmatrix}^{r} 
 \vdots & \vdots & \vdots & \ddots & \vdots & \vdots 
 X_{p1} & X_{p2} & X_{p3} & \dots & X_{pn} \end{bmatrix}_{r}
```

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

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

\(\def\B\{ \\ \[ax_0 + by_1 \| \" \\ ax_1 + by_2 \| \\ \\ \ ax_{\{N-1}\} + by_{\{N-1}\} \] \\ \\ \B = a[^{\text{\$\def}}x] + b[^{\text{\$\def}}y] \(\text{\} \)

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

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

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

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

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

$$(n \mid k) = \{(n \mid k)\}, \{[n \mid k]\},$$

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

$$\overbrace{x+\ldots+x}^{k \text{ times}}$$

$$\frac{\pi d^2}{4} \frac{1}{(A+B)^2} = \frac{\pi d^2}{4} \frac{1}{(A+B)^2}$$

$$\sum_{\substack{0 \leq i \leq N \\ 0 \leq j \leq M}}^{n} (ij)^2 + \sum_{\substack{i \in A \\ 0 \leq j \leq M}}^{n} (ij)^2$$

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

$$\left. f^{(2)}(0) = f''(0) = rac{d^2 f}{dx^2}
ight|_{x=0}$$

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

prefix unary operator →¬:

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

postfix unary operator □:

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

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

$$f: x \xrightarrow{\langle arrow \ } map
angle x^2$$