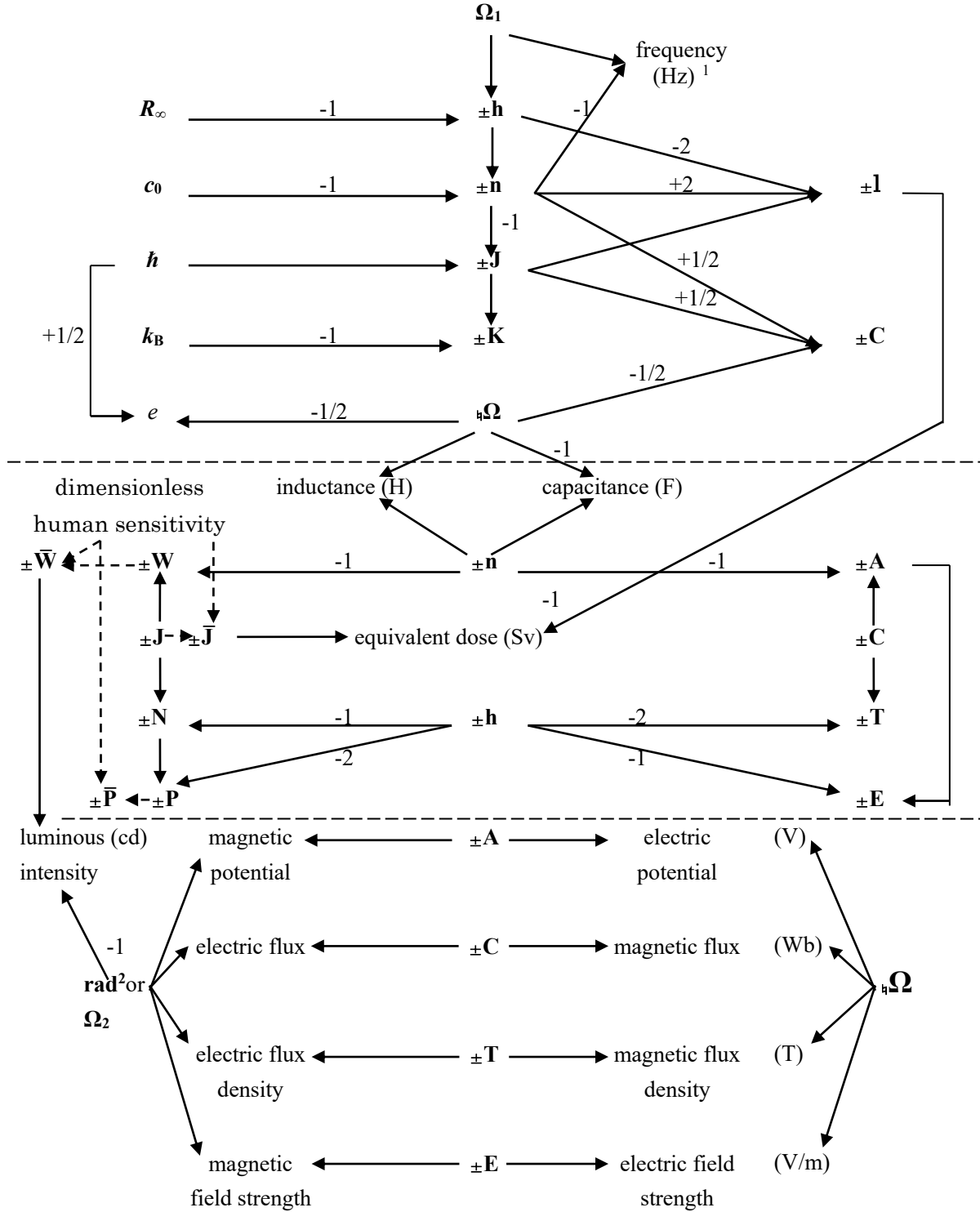


E. Relation of Units and Dimensions



¹ The units enclosed with '()' are units of SI.

Force between electrical quantities

$$f = \frac{1}{\epsilon_0} \frac{\Omega_2 Q}{4\pi r^2} Q' = \Omega_n c_0 \frac{QQ'}{r^2}$$

Force between electrical currents

$$df = \mu_0 \frac{\Omega_2 I}{2\pi r} I' = \frac{2\Omega_n}{c_0} \frac{II'}{r}$$

Lorentz force

$$\mathbf{F} = Q(\mathbf{E} + \mathbf{v} \times \mathbf{B})$$

Energy density of an electromagnetic field

$$u = \frac{1}{2\Omega_2} (\mathbf{E} \cdot \mathbf{D} + \mathbf{H} \cdot \mathbf{B})$$

Poynting vector

$$\mathbf{S} = \frac{1}{\Omega_2} \mathbf{E} \times \mathbf{H}$$

Electromagnetic induction law

$$\nabla \times \mathbf{E} = -\frac{\partial \mathbf{B}}{\partial t}$$

Gauss' theorem (differential form)

$$\nabla \times \mathbf{H} = +\frac{\partial \mathbf{D}}{\partial t} + \Omega_2 \mathbf{J}$$

Charge conservation law

$$\left\{ \begin{array}{l} \nabla \cdot \mathbf{D} = \Omega_2 \rho \\ \nabla \cdot \mathbf{B} = 0 \end{array} \right.$$

Scalar potential

$$\nabla \cdot \mathbf{J} + \frac{\partial \rho}{\partial t} = 0$$

Vector potential

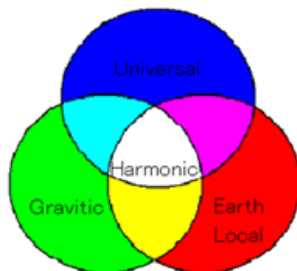
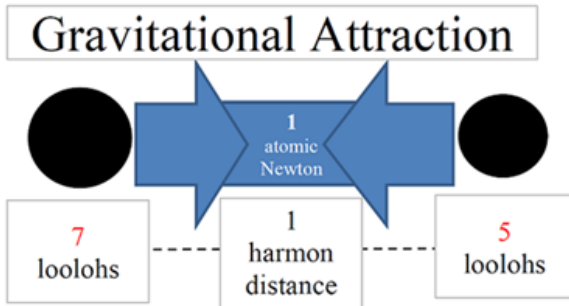
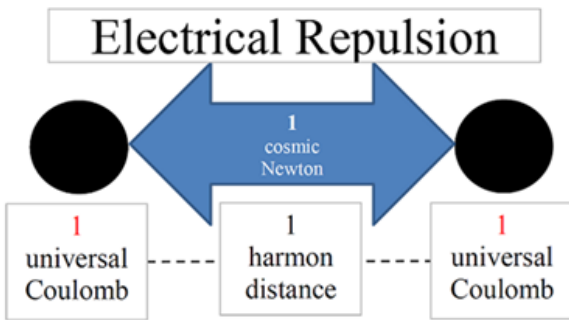
$$\mathbf{E} = -\nabla \phi - \frac{\partial \mathbf{A}}{\partial t}$$

Equation that satisfies the potential

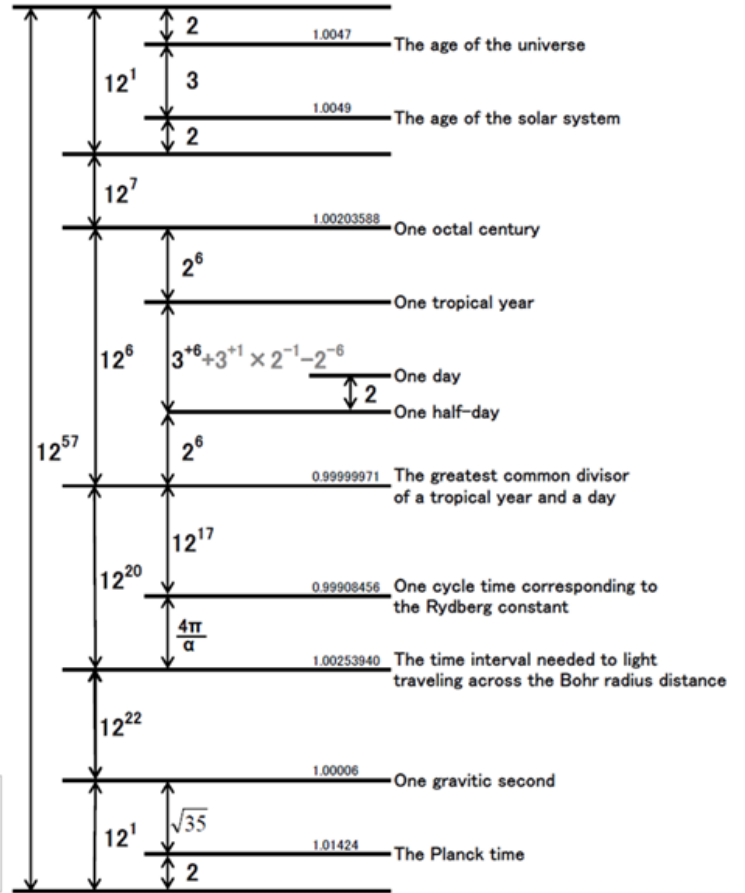
$$\mathbf{B} = +\nabla \times \mathbf{A}$$

$$\left\{ \begin{array}{l} \Delta \phi - \epsilon_0 \mu_0 \frac{\partial^2 \phi}{\partial t^2} = -\Omega_2 \frac{\rho}{\epsilon_0} \\ \Delta \mathbf{A} - \epsilon_0 \mu_0 \frac{\partial^2 \mathbf{A}}{\partial t^2} = -\Omega_2 \mu_0 \mathbf{J} \end{array} \right.$$

Constant $\approx \Omega_0^n \times 12^m$, where $n \in \{0, \pm 1\}, m \in \mathbb{Z}$



Natural Time Scale



1 hexon = 2^6 years $\doteq 10;(12.)^6$ nodus = $10;(12.)^9$ ternons			
0 th year	1 st year	...	53;(63.) rd year

1 year = $10;(12.)$ months			
0 th month	1 st month	...	E;(11.) th month

1 month = $26;(30.)$ days or $27;(31.)$ days			
0 th day	1 st day	...	last day

1 day = $10;(12.)^3$ tertias			
0 th tertia	1 st tertia	...	EEE;(1727.) th tertia

1 tertia = 2^7 ternons			
0 th ternon	1 st ternon	...	X7;(127.) th ternon