NEW FOUNDATIONS MODEL

	Traditional equation	Maximum Potential	Proportionality Operators: *length*	*mass*	*time*	$\frac{\Delta x}{\Delta t}$	Natural Formula
Mechanics							
Photon momentum	$p_\gamma = \frac{\hbar}{\lambda\!\!\!^{-}}$	p_P	$\frac{l_P}{\lambda\!\!\!^{-}}$				$p = p_P \frac{l_P}{\lambda\!\!\!^{-}}$
Photon energy	$E_\gamma = \frac{\hbar c}{\lambda\!\!\!^{-}}$	E_P	$\frac{l_P}{\lambda\!\!\!^{-}}$				$E = E_P \frac{l_P}{\lambda\!\!\!^{-}}$
Compton wavelength	$\lambda\!\!\!^{-}_C = \frac{\hbar}{mc}$	l_P		$\frac{m_0}{m_P}$			$\lambda\!\!\!^{-} = l_P \frac{m_P}{m_0}$
de Broglie wavelength	$\lambda\!\!\!^{-} = \frac{\hbar}{mv}$	l_P		$\frac{m_0}{m_P}$		$\frac{v}{c}$	$\lambda\!\!\!^{-} = l_P \frac{m_P}{m_0} \frac{c}{v}$
Momentum	$p = \frac{\hbar}{\lambda\!\!\!^{-}}$	p_P	$\frac{l_P}{\lambda\!\!\!^{-}}$				$p = p_P \frac{l_P}{\lambda\!\!\!^{-}}$
Kinetic energy	$E_k = ½mv^2$	E_P			$\frac{t_P}{T}$		$E_k = E_P \frac{1}{2} \frac{t_P}{T}$
Gravitation							
Schwarzschild radius	$r_s = \frac{2G}{c^2}$	l_P		$\frac{M}{m_P}$			$r = l_P \; 2 \frac{M}{m_P}$
Escape velocity	$v_e = \left(\frac{-2GM}{r}\right)^{½}$	$\frac{l_P}{t_P}$	$\frac{l_P}{r}$	$\frac{M}{m_P}$			$v = \frac{l_P}{t_P} \left(2 \frac{l_P}{r} \frac{M}{m_P}\right)^{½}$
Energy potential	$U_g = \frac{-GMm}{r}$	E_P	$\frac{l_P}{r}$	$\frac{M}{m_P} \frac{m}{m_P}$			$E = E_P \frac{l_P}{r} \frac{M}{m_P} \frac{m}{m_P}$
Acceleration potential	$g = \frac{-GM}{r^2}$	a_P	$\frac{l_P}{r} \frac{l_P}{r}$	$\frac{M}{m_P}$			$a = a_P \frac{l_P}{r} \frac{l_P}{r} \frac{M}{m_P}$
Force potential	$F = \frac{-GMm}{r^2}$	F_P	$\frac{l_P}{r} \frac{l_P}{r}$	$\frac{M}{m_P} \frac{m}{m_P}$			$F = F_P \frac{l_P}{r} \frac{l_P}{r} \frac{M}{m_P} \frac{m}{m_P}$
Black hole energy ($k_B T$)	$k_B T = \frac{\hbar c^3}{8\pi GM}$	E_P		$\frac{M}{m_P}$			$E = E_P \frac{1}{8\pi} \frac{m_P}{M}$
Electromagnetism							
Electrostatic potential	$F = k_e \frac{q_1 q_2}{r^2}$	F_P	$\frac{l_P}{r} \frac{l_P}{r}$		$\frac{t_P}{t} \frac{t_P}{t}$		$F = F_P \frac{l_P}{r} \frac{l_P}{r} \frac{t}{t_P} \frac{t}{t_P}$

l_P = Planck length t_P = Planck time E_P = Planck energy F_P = Planck force

m_P = Planck mass p_P = Planck momentum a_P = Planck acceleration

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