



Symbol	Quantity	Value	Unit	Uncertainty
$C_e$	Vortex-Tangential-Velocity	1.09384563e+06	$\text{m s}^{-1}$	exact
$\rho^{core}$	Æther Core Density	3.89343583e+18	$\text{kg m}^{-3}$	exact
$\rho^{free}$	Æther Vacuum Density	7.00000000e-07	$\text{kg m}^{-3}$	exact
$F_{max}$	Maximum force	2.90535070e+01	N	exact
$r_c$	Vortex-Core radius	1.40897017e-15	m	exact
$F_{Coulomb}$	Maximum Coulomb Force	2.90535070e+01	N	exact
$F_{GRmax}$	Maximum Universal Force	3.02563891e+43	N	exact
$c$	Speed of light in vacuum	2.99792458e+08	$\text{m s}^{-1}$	exact
$G$	Newtonian constant of gravitation	6.67430000e-11	$\text{m}^3 \text{kg}^{-1} \text{s}^{-2}$	2.2e-5
$h$	Planck constant	6.62607015e-34	$\text{J Hz}^{-1}$	exact
$\alpha$	Fine-structure constant	7.29735256e-03		1.6e-10
$R_c$	Coulomb barrier	1.40897017e-15	m	exact
$R_e$	Classical electron radius	2.81794033e-15	m	1.3e-24
$\alpha_g$	Gravitational coupling constant	1.75180000e-45		exact
$\mu_0$	Vacuum magnetic permeability	1.25663706e-06	$\text{N A}^{-2}$	exact
$\varepsilon_0$	Vacuum electric permittivity	8.85418782e-12	$\text{F m}^{-1}$	exact
$Z_0$	Characteristic impedance of vacuum	3.76730313e+02	$\Omega$	1.6e-10
$\hbar$	Reduced Planck constant	1.05457182e-34	$\text{J s}$	exact
$L_p$	Planck length	1.61625500e-35	m	1.1e-5
$M_p$	Planck mass	2.17643400e-08	kg	1.1e-5
$t_p$	Planck time	5.39124700e-44	s	1.1e-5
$T_p$	Planck temperature	1.41678400e+32	K	1.1e-5
$e$	Elementary charge	1.60217663e-19	C	exact
$R_\infty$	Rydberg constant	1.09737316e+07	$\text{m}^{-1}$	1.1e-12
$a_0$	Bohr radius	5.29177211e-11	m	1.6e-10
$M_e$	Electron mass	9.10938370e-31	kg	3.1e-10
$M_{proton}$	Proton mass	1.67262192e-27	kg	3.1e-10
$M_{neutron}$	Neutron mass	1.67492750e-27	kg	5.1e-10
$k_B$	Boltzmann constant	1.38064900e-23	$\text{J K}^{-1}$	exact
$R$	Gas constant	8.31446262e+00	$\text{J mol}^{-1} \text{K}^{-1}$	exact
$\frac{1}{\alpha}$	Fine structure constant reciprocal	1.37035999e+02		1.6e-10
$f_c$	Compton frequency of the electron	1.23558996e+20	m	1.0e-10
$\Omega_c$	Compton angular frequency of the electron	7.76344071e+20	m	1.0e-10
$\lambda_c$	Compton wavelength of the electron	2.42631024e-12	m	1.0e-10
$\Phi_0$	Magnetic flux quantum	2.06783385e-15	Wb	exact
$\varphi$	Golden ratio (Fibonacci constant)	1.61803399e+00		7.3e-22
$eV$	Electron volt	1.60217663e-19	J	exact
$G_F$	Fermi coupling constant	1.16637870e-05	$\text{GeV}^{-2}$	6e-12
$\lambda_{proton}$	Proton Compton wavelength	1.32140986e-15	m	4e-25
$q_p$	Planck charge	1.87554596e-18	C	exact
$E_p$	Planck energy	1.95600000e+09	J	exact
$ER_\infty$	Rydberg energy (in joules)	2.17987236e-18	J	1.1e-12
$fR_\infty$	Rydberg frequency	3.28984196e+15	Hz	1.1e-12
$\sigma$	Stefan-Boltzmann constant	5.67037442e-08	$\text{W m}^{-2} \text{K}^{-4}$	exact
$b$	Wien displacement constant	2.89777196e-03	$\text{m K}$	exact
$k_e$	Coulomb constant	8.98755179e+09	$\text{N m}^2 \text{C}^{-2}$	exact

Table 1: Table of physical constants used in the Vortex Æther Model (VAM).