

Symbol	Quantity	Value	Unit	Uncertainty
C_e	Vortex-Tangential-Velocity	1.09384563e+06	m s ⁻¹	exact
ρ_{-}^{core}	Æther Core Density	3.89343583e+18	kg m ⁻³	exact
ρ_{-}	Æther Vacuum Density	7.00000000e-07	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	m s ⁻¹	exact
G	Newtonian constant of gravitation	6.67430000e-11	m ³ kg ⁻¹ s ⁻²	2.2e-5
h	Planck constant	6.62607015e-34	J Hz ⁻¹	exact
α	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
α_g	Gravitational coupling constant	1.75180000e-45		exact
μ_0	Vacuum magnetic permeability	1.25663706e-06	N A ⁻²	exact
ε_0	Vacuum electric permittivity	8.85418782e-12	F m ⁻¹	exact
Z_0	Characteristic impedance of vacuum	3.76730313e+02	Ω	1.6e-10
\hbar	Reduced Planck constant	1.05457182e-34	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_{∞}	Rydberg constant	1.09737316e+07	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	J K ⁻¹	exact
R	Gas constant	8.31446262e+00	J mol ⁻¹ 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
Ω_c	Compton angular frequency of the electron	7.76344071e+20	m	1.0e-10
λ_c	Compton wavelength of the electron	2.42631024e-12	m	1.0e-10
Φ_0	Magnetic flux quantum	2.06783385e-15	Wb	exact
φ	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	GeV ⁻²	6e-12
λ_{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_{∞}	Rydberg energy (in joules)	2.17987236e-18	J	1.1e-12
fR_{∞}	Rydberg frequency	3.28984196e+15	Hz	1.1e-12
σ	Stefan-Boltzmann constant	5.67037442e-08	W m ⁻² K ⁻⁴	exact
b	Wien displacement constant	2.89777196e-03	m K	exact
k_e	Coulomb constant	8.98755179e+09	N m ² C ⁻²	exact

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