

Table I. Notations of the values used in the book (Latin 1)

Notation	L ^A T _E X	Definition	Units/Value
A		area	cm ²
\mathbf{A}		transformation matrix	dimensionless
A_T		turbulent advection coefficient	keV s ⁻¹
A_{Coll}		collisional advection coefficient	keV s ⁻¹
B		magnetic field	Gauss
$B(x, y, \xi)$		incomplete beta function	dimensionless
C		constant	$F_0(E_0) = CE_0^{-\delta}$
D_T		turbulent diffusion coefficient	keV ² s ⁻¹
D_{Coll}		collisional diffusion coefficient	keV ² s ⁻¹
E		electron energy	keV
E_c		low energy electron cutoff	keV
E_*		electron pivot point energy	keV
\mathcal{E}	\cal E	electric field strength	statVolt cm ⁻¹
EM		emission measure	cm ⁻³
$F(E)$		differential (in energy) electron flux	electrons cm ⁻² s ⁻¹ keV ⁻¹
$F_0(E_0)$		differential (in energy) injected electron flux	electrons cm ⁻² s ⁻¹ keV ⁻¹
$\mathcal{F}_0(E_0)$	\cal F	differential (in energy) injected electron rate	electrons s ⁻¹ keV ⁻¹
F_G		GOES 1-8Å flux	erg cm ⁻² s ⁻¹
G		Green's function	keV ⁻¹
I		electric current	statamps
J		volumetric photon production rate	cm ⁻³ s ⁻¹
K		collision coefficient = $2\pi e^4 \Lambda$	erg ² keV ²
K_E		unit transformation factor	1.6×10^{-9} erg keV ⁻¹
L		luminosity	erg s ⁻¹
L_X		X-ray luminosity	erg s ⁻¹
\mathcal{L}	\cal L	inductance	s ² cm ⁻¹
N		column density	cm ⁻²
\mathcal{N}	\cal N	number of particles	dimensionless
P		power	erg s ⁻¹
P		fractional polarization	%
Q		energy input rate	erg cm ⁻³ s ⁻¹
R		Sun-Earth distance	1 AU = 1.5×10^{13} cm
T		temperature	K
U		energy	erg
U_e		electron energy	erg
U_i		ion energy	erg
U_k		kinetic energy	erg
U_R		radiative energy	erg
U_{th}		thermal energy	erg
U_ϕ		potential energy	erg
U_p		particle energy	erg
Z		ionic charge	dimensionless

Table II. Notations of the values used in the book (Latin 2)

Notation	L ^A T _E X	Definition	Units/Value
a		constant (thermal DEM(T))	some unit
b		correlation parameter (chapter 6)	
c		speed of light	$2.996 \times 10^{10} \text{ cm s}^{-1}$
c_s		speed of sound	cm s^{-1}
e		electronic charge	$4.8 \times 10^{-10} \text{ e.s.u.}$
f		filling factor	dimensionless
h		altitude	km
j, \mathbf{j}		current density	statamp cm^{-2}
k		Boltzmann's constant	$1.38 \times 10^{-16} \text{ erg K}^{-1}$
ℓ	\ell	length	cm
m_e		electron mass	$9.1 \times 10^{-28} \text{ g}$
n		number density	cm^{-3}
$n(E)$		differential (in energy) number density	$\text{cm}^{-3} \text{ keV}^{-1}$
$q(\epsilon, E)$		$= \epsilon E \sigma(\epsilon E)$	$\text{cm}^2 \text{ keV}$
r_0		electron radius	$2.82 \times 10^{-13} \text{ cm}$
\mathbf{r}		position vector	cm
s		spectral index (ions)	dimensionless
t		time	s
v		velocity	cm s^{-1}
x		heliocentric coordinate	arcsec
x		ionization fraction	dimensionless
y		heliocentric coordinate	arcsec
z		distance	cm

Table III. Notations of the values used in the book (Greek)

Notation	L ^A T _E X	Definition	Units/Value
α	\alpha	power-law index	dimensionless
α_{fs}		fine structure constant	$\sim 1/137$
β	\beta	plasma beta = $16\pi nkT/B^2$	dimensionless
γ	\gamma	photon spectral index	dimensionless
δ	\delta	electron spectral index	dimensionless
ϵ	\epsilon	photon energy	keV
ϵ_*		pivot point photon energy	keV
ζ	\zeta	power-law index	dimensionless
η	\eta	efficiency	dimensionless
η		resistivity	s
θ	\theta	pitch angle	radiance
λ	\lambda	wavelength	Å
λ_{mfp}		mean free path	cm
μ	\mu	= $\cos \theta$	dimensionless
$\nu(\epsilon, E_0)$	\nu	differential photon productivity	keV ⁻¹
σ	\sigma	electrical conductivity	s ⁻¹
$\sigma(\epsilon, E)$		bremsstrahlung cross-section	cm ² keV ⁻¹
τ	\tau	time	s
τ_c		conductive cooling time	s
τ_g		gaussian time profile width	s
τ_r		radiative cooling time	s
ϕ	\phi
Λ	\Lambda	Coulomb logarithm	dimensionless
Λ_{ee}		electron-electron Coulomb logarithm	dimensionless
Λ_{eH}		electron-hydrogen Coulomb logarithm	dimensionless
Ω	\Omega	solid angle	steradians

