



Space Weather Introductory Course

List of abbreviations

//	Parallel	ASPIICS	Association of Spacecraft for Polarimetric and Imaging Investigation of the Corona of the Sun (PROBA-3)
⊥	Perpendicular		
2D	Two dimensional		
3D	Three dimensional		
Å	Ångström (0.1 nm or 10 ⁻¹⁰ m)	ATC	Air Traffic Control
A	Area	ATM	Air Traffic Management
A/C	Aircraft	AU	Astronomical Unit; about 150 million km
aa, AA	A 3-hour and daily geomagnetic index (nT) based on two antipodal stations (Canberra and Hartland)	AVIDOS	Aviation Dosimetry
AAR	Auroral Acceleration Region	AWACS	Airborne early Warning And Control Station
aBG	Above background	AZA	Auroral Zone Absorption
Ac	Corrected area (e.g. for line-of-sight)	β	Plasma beta parameter (the ratio of the plasma pressure to the magnetic pressure)
ACE	Advanced Composition Explorer	B	Magnetic field (strength)
AE	Auroral Electrojet	B/G, B/Gr	Background
A _e	Effective Area	BDE	Bidirectional beams of suprathermal (> 100 eV) electrons
AFB	Air Force Base	BE	Belgium
AFFECTS	Advanced Forecast For Ensuring Communications Through Space	BeiDou	Chinese GNSS
AFWA	Air Force Weather Agency	BELSPO	Belgian Science Policy Office
AGU	American Geophysical Union	BGS	British Geological Survey
AH-64	Apache military helicopter	BISA	Belgian Institute for Space Aeronomy
AIA	Atmospheric Imaging Assembly (SDO)	BMD	Ballistic Missile Defense
Al	Aluminum	B.USOC	Belgian User Support and Operation Center
AM	Amplitude Modulation	Bz	Component of the IMF perpendicular to the ecliptic (“north-south” component)
anaprop	Anomalous Propagation		degrees Celsius
AOCS	Air Operations Control Station	°C	
a _p , A _p	Resp. a 3-hour and daily geomagnetic index, ranging from 0 (quiet) to 400 nT (extremely severe storm)	c ₀	Speed of light in vacuum
APS	Active Pixel Sensor	C-class flare	Common x-ray flare
APV	Approach with vertical guidance	C/N ₀	Carrier-to-Noise (dB-Hz)
Ar	Argon	Ca II H	A blue line in the solar spectrum at 396.85 nm
AR	Active Region	Ca II K	A blue line in the solar spectrum at 393.37 nm
ARCAS	Augmented Resolution Callisto Spectrometer	CACTus	Computer Aided CME Tracking software
ASFC	Australian Space Forecast Center (SWS)	CALLISTO	Compound Astronomical Low frequency Low cost Instrument for Spectroscopy and Transportable Observatory



Space Weather Introductory Course

CCD	Charge-Coupled Device	DGPS	Differential Global Positioning System
CDAW	Coordinated data analysis workshop (NASA/GSFC)	DH	Decametric-Hectometric
CELIAS	Charge, Element, and Isotope Analysis System (SOHO)	D _{Iono}	Ionospheric delay
CESRA	Community of European Solar Radio Astronomers	DLR	Deutsches Zentrum für Luft- und Raumfahrt (German Aerospace Center)
cgs	Metric system based on the centimeter, the gram, and the second	DN	Digital Number (pixel values not calibrated into physically meaningful units)
CH	Coronal Hole	DNL	Distant Neutral Line
CIR	Co-rotating Interaction Region	DOI	Digital Object Identifier
CISM	Center for Integrated Space Weather Modeling	DOP	Dilution Of Precision
Cluster	ESA/NASA mission to study the Earth's magnetosphere (no acronym)	DOY	Day Of Year
CM	Central Meridian	DRAO	Dominion Radio Astrophysical Observatory
CMD	Central Meridian Distance	DSCOV	Deep Space Climate Observatory
CME	Coronal Mass Ejection	DSL	Dual Segmented Langmuir Probe (PROBA2)
COMESSEP	COronal Mass Ejections and Solar Energetic Particles	DSP	Digital Signal Processing
CONUS	Continental United States	Dst	Disturbance Storm Time index; an hourly geomagnetic index (nT)
COPUOS	COmmittee on the Peaceful Uses of Outer Space (UN)	D _{Tropo}	Tropospheric delay
COR (1/2)	Coronagraph (Inner/Outer) onboard STEREO	DTU	Technical University of Denmark
COSPAR	COmmittee on SPACe Research	e ⁻	electron
COST	(European) COoperation in Science & Technology	E	(1) Electric field; (2) Electrical efficiency of an antenna; (3) Energy (4) ionospheric layer
CRF	Cosmic Ray Flux	E1, E5a	Galileo frequencies: E1 = 1575.42 MHz, L2 = 1176.45 MHz
CRC	Control and Reporting Center	e-Callisto	extended Compact Astronomical Low-cost Low-frequency Instrument for Spectroscopy and Transportable Observatory
CSHKP	Carmichael, Sturrock, Hirayama, Kopp and Pnevman (standard model for solar flares)	ECA	European Cockpit Association
CSL	Centre Spatial de Liège	ECMWF	European Centre for Medium-range Weather Forecasts
CTM	Continuum storm (radio)	EDACs	Error-detection-and-correction algorithms
CubeSat	A small satellite measuring 10cm x 10cm x 10cm	EGNOS	European Geostationary Navigation Overlay Service
CW	Continuous Wave	EGU	European Geosciences Union
D-RAP	D Region Absorption Predictions (NOAA/SWPC)	EHF	Extreme High Frequency
dB	(1) Decibel ; (2) change in magnetic field amplitude	EIA	Equatorial Ionization Anomaly
dB _i	dB with reference to an isotropic antenna	EISCAT	European Incoherent SCATter scientific association
dB _m	dB with reference to 1 mW		
dBW	Decibel Watt		
D	(1) Directivity of an antenna; (2) ionospheric layer		



Space Weather Introductory Course

EIT	Extreme ultraviolet Imaging Telescope (SOHO)	EUREF	European Reference Frame
EIT-wave	A coronal wave named after the EIT instrument	EURISGIC	European Risk from Geomagnetically Induced Currents project (FP7)
EIWG	Earth ionosphere waveguide	EUV	Extreme Ultraviolet
ELF	Extremely Low Frequency	EUVI	Extreme Ultraviolet Imager (STEREO/SECCHI)
EM	Electromagnetic	eV	electronvolt ($1.6 \cdot 10^{-19}$ Joule)
EMUF	E-layer MUF (ionosphere)	EVA	Extravehicular activity
ENLIL	Sumerian god of wind and storms (NOT an acronym)	EVE	Extreme ultraviolet Variability Experiment (SDO)
ENTSO-E	European Network of Transmission System Operators	EWC	Early Warning Capability
EPAM	Electron, Proton, and Alpha Monitor (ACE)	Φ	Flux
EPB	Equatorial Plasma Bubble	f	frequency
EPCARD	European Program Package for the Calculation of Aviation Route Doses	F	Force
EPN	EUREF Permanent Network	F1, F2	Ionospheric layer
EPT	Energetic Particle Telescope (PROBA-V)	F _{10.7 cm}	Solar radio flux at 10.7 cm wavelength
erg	unit of energy ($1 \text{ erg} = 10^{-7} \text{ J}$)	F10.7P	Proxy for F10.7 cm radio flux (= $(F_{10.7} + F_{10.7A})/2$, with F10.7A the average over the previous 81 days)
Es	Sporadic E (ionosphere)	FAA	Federal Aviation Administration
ESA	European Space Agency	FAC	Field Aligned Current
ESC	Expert Service Centre (ESA/SSA)	FADEC	Full Authority Digital Engine Control
ESD	Electrostatic Discharge	FC	Faraday Cup (DSCOVR)
ESERO	European Space Education Resource Office	FD	Forbush Decrease
ESF	Equatorial Spread F	Fe xvi	Fifteen times ionized iron
ESOC	European Space Operations Centre	FLRW	Field line random walk
ESP	EUV SpectroPhotometer (SDO)	FM	Frequency Modulation
ESTEC	European Space Research and Technology Centre	FMI	Finnish Meteorological Institute
ESWP	European Space Weather Portal	foE	Critical frequency E-layer
ESWW	European Space Weather Week	foF1	Critical frequency F1-layer
ETH Zürich	Eidgenössische Technische Hochschule Zürich	foF2	Critical frequency F2-layer
EU	European Union	FOT	Frequency of Optimum Transmission (ionosphere)
EUHFORIA	European Heliospheric Forecasting Information Asset	FOV	Field-Of-View
EUI	Extreme-Ultraviolet Imagers (Solar Orbiter)	FP7	Framework Program 7 (EU)
EUMETNET	European Meteorological services Network	FS	Forward shock
EUMETSAT	European Organization for the Exploitation of Meteorological Satellites	FTE	Fast Transit Event
		FUV	Far Ultraviolet
		G	(1) Gauss ($1 \text{ G} = 100.000 \text{ nT}$; $1 \text{ T} = 10.000 \text{ G}$); (2) NOAA's scale for geomagnetic storms; (3) Gain of an antenna
		g	number of sunspot groups
		GAGAN	GPS Aided GEO Augmented Navigation (India)



Space Weather Introductory Course

Galileo	European GNSS	H, H ₂	Hydrogen, molecular hydrogen
GBAS	Ground Based Augmentation System	H2020	Horizon 2020; EU Research and Innovation program (2014 to 2020)
GCR	Galactic Cosmic Rays		
GDM-TEC	Global daily mean Total Electron Content	H ₂ O	Water, water vapour
GEO	Geostationary Earth orbit (at altitude of 35.786 kilometers)	H-alpha (H α)	A red visible spectral line at 656.28 nm created by Hydrogen
GeV	Giga electronvolt (10 ⁹ . 1.6 . 10 ⁻¹⁹ Joule)	H-component	Horizontal component of the MF
GHz	Gigahertz (10 ⁹ Hz)	HAARP	High Frequency Active Auroral Research Program
GIC	Geomagnetically induced current	HAO	High Altitude Observatory
GIM	Global Ionospheric Maps	h _c	Critical height
GLE	Ground Level Enhancement	HCS	Heliospheric Current Sheet
GLONASS	GLObal NAVigation Satellite System (Russia)	He	Helium
GMDSS	Global Maritime Distress and Safety System	HEK	Heliophysics Events Knowledgebase
GNSS	Global Navigation Satellite System	HELCATS	HELiospheric Cataloguing, Analysis and Techniques Service
GNSS4SWEC	Advanced GNSS tropospheric products for the monitoring of Severe Weather Events and Climate	HEO	High Earth Orbit (altitude > 35.786 km)
GOES	Geostationary Operational Environmental Satellite	HF	High Frequency (3-30 MHz)
GONG	Global Oscillation Network Group	HI	Heliospheric Imager (STEREO)
GP-B	Gravity Probe B (2004-2010)	Hinode	A JAXA/NASA solar mission
GPS	Global Positioning System (USA)	h _m F ₂	peak electron density height of F ₂ -layer
GRAPE	GNSS Research and Application for Polar Environment	HMI	Heliospheric and Magnetic Imager (SDO)
GSE	Geocentric Solar Ecliptic (coordinate system)	hr	hour
GSEQ	Geocentric Solar EQUatorial (coordinate system)	HSRS	Humain Solar Radio Spectrograph
GSFC	Goddard Space Flight Center	HSS	High Speed Stream
GSM	(1) Global System for Mobile Communications (2) Geocentric Solar Magnetospheric (coordinate system)	HuRAS	Humain Radio Astronomy Station
GSO	Geosynchronous orbit	HXR	Hard x-rays
GSSAC	German Space Situational Awareness Center	Hz	Hertz (per second)
GTO	Geostationary Transfer Orbit	i	ion(s)
Gy	Gray (J/kg ; absorbed radiation dose)	I	Intensity
h	Planck's constant (6.62607004 × 10 ⁻³⁴ m ² kg / s)	IAU	International Astronomical Union
		IAGA	International Association of Geomagnetism and Aeronomy
		ICAO	International Civil Aviation Organization
		ICME	Interplanetary CME
		ICSU	International Council for Science



Space Weather Introductory Course

ICTSW	Interprogramme Coordination Team on Space Weather (WMO)	ISS	International Space Station
IEEE	Institute of Electrical and Electronics Engineers	ISWI	International Space Weather Initiative
IF	(1) Intermediate Frequency; (2) Interface	ITRF	International Terrestrial Reference Frame
IFF	Identification Friend or Foe	ITU	International Telecom Unit
IGS	International GNSS Service	IUGG	International Union of Geodesy and Geophysics
IGSO	Inclined geosynchronous orbit	φ	Phi angle
ILWS	International Living With a Star (Program)	J	Joule
IMAGE	Imager for Magnetopause-to-Aurora Global Exploration	JAXA	Japan Aerospace eXploration Agency
IMF	Interplanetary Magnetic Field	JBP	Jet Bright Point
IMPACT	In-situ Measurements of Particles and CME Transients (STEREO)	jHV	jHelioViewer
INTEGRAL	INTErnational Gamma-Ray Astrophysics Laboratory	JMG	Joint Meteorological Group
INTERMAGNET	INTERNational Real-time MAGnetic Observatory NETWORK	JSWSC	Journal of Space Weather and Space Climate
IP	Interplanetary	K	(1) Local K-index: A 3-hour geomagnetic index, ranging from 0 (quiet) to 9 (extremely severe storm) ; (2) degrees Kelvin
ISES	International Space Environment Services	K-Cor	K-coronagraph (MLSO)
IIFR	Interpolated In-Field Referencing	keV	kilo electronvolt ($10^3 \cdot 1.6 \cdot 10^{-19}$ Joule)
INGV	Istituto Nazionale Geofisica e Vulcanologia (Italy)	kHz	kilo Hertz (10^3 /second)
IPB	Ionospheric Plasma Bubble	KNMI	Koninklijk Nederlands Meteorologisch Instituut
IPP	Ionospheric Piercing Point	K _p	Planetary K-index; A 3-hour geomagnetic index, ranging from 0 (quiet) to 9 (extremely severe storm)
IPS	Interplanetary Scintillation	K _s	Standardized K index
IPT-SWeISS	Inter-Programme Team on Space Weather Information, Systems and Services (WMO)	KSB	Koninklijke Sterrenwacht van België
IR	Infrared	KUL	Katholieke Universiteit Leuven
IRI	International Reference Ionosphere	kV	kiloVolt (10^3 Volt)
IRIS	Interface Region Imaging Spectrograph	λ	wavelength
IRNSS	Indian Regional Navigation Satellite System (Regional system; India)	L	(1) Letter (manuscript); (2) Length; (3) Loss
IRSN	Institut de Radioprotection et de Sûreté Nucléaire	L-shell	Set of planetary magnetic field lines
ISES	International Space Environment Service	L1, L2	GPS frequencies: L1 = 1575.42 MHz , L2 = 1227.60 MHz
ISOON	Improved Solar Observing Optical Network (USAF/AFWA)	L1, ..., L5	First, ... , fifth Lagrangian point
ISN	International Sunspot Number	LAAS	Local Area Augmentation System
		LASCO	Large Angle Spectrometric Coronagraph (SOHO); small (C2) and wide (C3) field of view
		LDE	Long Duration Event



Space Weather Introductory Course

LDM-TEC	Latitudinal Daily Mean TEC value	METOC	Meteorology and Oceanography
LEA	Learmonth (RSTN, radio observatory)	MF	(1) Medium frequency (300 kHz - 3 MHz); (2) Magnetic field
LEO	Low Earth Orbit (160-2000 km altitude)	MH	Millionths of a solar hemisphere (1 MH = ~ 3 million km ²). Area Earth = ~167 MH
LF	Low Frequency (30-300 kHz)	MHD	Magnetohydrodynamics
LH	Left-handed	MHF	Medium High Frequency
LHCP	Left Hand Circular Polarized	MHz	Megahertz (10 ⁶ /s)
LIDAR	Light Detection And Radar	MK	Million degrees Kelvin
LMSAL	Lockheed Martin Solar and Astrophysics Laboratory	mks	Metric system based on the meter, kilogram, and second
LOFAR	Low-Frequency Array	MLSO	Mauna Loa Solar Observatory
LORAN	Long Range Navigation	MP	Magnetopause
LOS	Line Of Sight	mph	miles per hour
LPV	Localizer performance with vertical guidance	ms	milliseconds (10 ⁻³ seconds)
LT	Local Time	MSAS	Multi-functional Satellite Augmentation System (Japan)
LUF	Lowest Useable Frequency	MSCS	McIntosh Sunspot Classification Scheme
LVNL	Luchtverkeersleiding Nederland	MSFC	Marshall Space Flight Center (NASA)
Ly- α	Lyman-alpha, a spectral line in the VUV at 121.6 nm	MSSL	Mullard Space Science Laboratory
LYRA	Large Yield RAdiometer, formerly called Lyman Alpha Radiometer (PROBA2)	mSv	millisievert (10 ⁻³ J/kg ; dose equivalent radiation)
μ	Magnetic moment of a gyrating particle	MTI	Moving Target Indication
μm	micrometer (10 ⁻⁶ meter)	MTOF	Mass Tome-of-Flight sensor (SOHO)
μ -waves	microwaves (300 MHz - 300 GHz)	MUF	Maximum Useable Frequency
M-class	Medium class satellite	Mw	Moment magnitude (earthquake)
M-class flare	Medium x-ray flare	v	Frequency
MAARBLE	Monitoring, Analyzing and Assessing Radiation Belt Loss and Energization	n	neutral particles
MAG	Magnetometer instrument (ACE, DSCOVR)	N, N ₂	Nitrogen, molecular nitrogen
MB	Megabyte	N	Density: particles per volume unit
MC	Magnetic cloud	NAIRAS	Nowcast of Atmospheric Ionizing Radiation System
MDI	Michelson Doppler Imager (SOHO)	NASA	National Aeronautics and Space Administration
MEGS-A	Multiple EUV Grating Spectrograph A (SDO) - No longer operational	NAVIC	NAVigation with Indian Constellation (Regional; Indian GNSS)
MEGS-B	Multiple EUV Grating Spectrograph B (SDO)	NATO	North-Atlantic Treaty Organization
MEO	Medium Earth orbit (2000 - <35.786 km altitude)	NCAR	National Center for Atmospheric Research
MeV	Mega electronvolt (10 ⁶ . 1.6 . 10 ⁻¹⁹ Joule)		



Space Weather Introductory Course

NCEI	National Centers for Environmental Information	PC	Polar Cap; a dimensionless geomagnetic index based on a single nearpole station (one for each pole)
N_e	Electron density ($e\text{-m}^{-3}$)		
Ne	Neon		
NENL	Near-Earth Neutral Line	PCA	Polar Cap Absorption
NEO	Near Earth Objects	PCAF	PCA forecast
Net-TIDE	Pilot Network for Identification of Travelling Ionospheric Disturbances in Europe	PEA	Post-eruption arcade
		PECASUS	Pan-European Consortium for Aviation Space weather User Services (ICAO)
NGDC	National Geophysical Data Center (NOAA)	PEN	Penticton (DRAO, radio flux)
NIR	Near IR	PFSS	Potential Field Source Surface particle (proton) flux unit: the number of particles registered per second, per square cm, and per steradian ($1\text{ pfu} = 1\text{ particle} / \text{cm}^2\text{s}^{-1}\text{sr}^{-1}$)
NJIT	New Jersey Institute of Technology	pfu	
NL	The Netherlands		
NM	Neutron Monitor		
nm	nanometer (10^{-9} meter)		
N_mF_2	peak electron density of F_2 -layer	PhD	Doctor of Philosophy
		PIL	Polarity Inversion Line (neutral line)
NO, NO^+	Nitric oxide, ionized NO		
NOAA	National Oceanic and Atmospheric Administration (numbering of sunspots,...)	PLASTIC	Plasma and Suprathermal Ion Composition (STEREO)
		PoS, PotS	Plane-of-the-Sky
NO_x	Refers to NO and NO_2	PPP	Precise Point Positioning (DGPS)
NRCan	Natural Resources Canada		
NRH	Nançay Radioheliograph	PRF	(1) Preliminary Report and Forecast of Solar Geophysical Data (the "Weekly"); (2) Pulse Repetition Frequency
NRT	Near Real Time		
NSO	National Solar Observatory (USA)		
NSWP	National Space Weather Program (USA)	PROBA	PRoject for OnBoard Autonomy
		PSR	Primary Surveillance Radar
nT	nanotesla (10^{-9} Tesla)	q	Charge
O, O_2, O^+	Oxygen, molecular oxygen, ionized oxygen	Q	Quantity (e.g. e^- , H_2O ,...)
		Q&A	Questions and Answers
O_3	Ozone	QS	Quiet Sun
OBEE	Outer belt electron enhancements	QZSS	Quasi-Zenith Satellite System (Regional system; Japan)
Op	Optical information (H-alpha classification)	R	(1) Radius ; (2) NOAA's scale for Radio Blackouts; (3) Range
ORFEES	Observation Radio Fréquences pour l'Etude des Eruptions Solaires	R&D	Research and Development
		RAC	Radar Auroral Clutter
		RAAF	Royal Australian Air Force
OTH	Over The Horizon	RADAR	RADio Detection And Ranging
P	Power	RAE	Royal Academy of Engineering (UK)
p^+	proton		
P_t	Transmitted power	RBR	Radio burst (fixed frequency)
P2SC	PROBA2 Science Center	RC	Ring Current
PAL	Palehua (RSTN, radio observatory)	RCS	Radar Cross Section
		R_E	Earth radius (6378 km)
PAR	Phased Array Radar	RF	Radio Frequency
		RFI	Radio Frequency Interference



Space Weather Introductory Course

RH	Right-handed	SC	(1) Solar Cycle ; (2) Sudden Commencement
RHCP	Right Hand Circular Polarized		
RHESSI	Reuven Ramaty High Energy Solar Spectroscopic Imager	SC24	Solar Cycle 24
Riometer	Relative Ionospheric Opacity Meter (originally: Relative Ionospheric Opacity Meter for Extra-Terrestrial Emissions of Radio noise)	SCNA	Sudden Cosmic Noise Absorption
RMI(B)	Royal Meteorological Institute (of Belgium)	SCORE	CME classification via speed (Slow-Common-Occasional-Rare-Extremely rare)
ROB	Royal Observatory of Belgium	SCOSTEP	Scientific Committee on Solar Terrestrial Physics
ROT	Rate of TEC change	SDA	Sudden Decrease of Atmospherics
ROTI	ROT index	SDO	Solar Dynamics Observatory
RRR	Rolling Requirement Review; WMO system for recording space weather requirements	SEA	Sudden Enhancement of Atmospherics
RS	Reverse shock	SEB	Single-event burnout
RSP	Sweep-frequency radio burst	SECCHI	Sun Earth Connection Coronal and Heliospheric Investigation (STEREO)
RSTN	Radio Solar Telescope Network (USAF)	SEE	Single Event Effect
RTK	Real Time Kinematics (DGPS)	SEL	Single-event latch-up
RTSW	Real-Time Solar Wind Data (ACE)	SEM	Solar EUV Monitor (SOHO)
RWC	Regional Warning Center	SEP	Solar Energetic Particle Environment Modelling (ESA)
RX	Receiver	SEPEM	Solar Energetic Particle Environment Modelling (ESA)
σ	Radar cross section	SES	Sudden Enhancements of Signal
σ_{ϕ}	Scintillation index (phase)	SESC	Space Environment Services Center
S	(1) Sub flare ; (2) NOAA's scale for Solar radiation storms	SEU	Single Event Upset (bit flip)
s	number of sunspots	SFA	Sudden Field Anomalies
S_{min}	Minimal detectable signal	SFD	Sudden Frequency Deviations
S-band	Radio waves with frequencies ranging from 2 to 4 GHz (IEEE)	SFE	Solar Flare Effect ("magnetic crochet")
S/C	Spacecraft	SFU, sfu	Solar Flux Unit ($10^{-22} \text{ W m}^{-2} \text{ Hz}^{-1}$)
S4	Scintillation index (amplitude)	SHF	Super High Frequency
SAA	South Atlantic Anomaly	SI	Sudden Impulse
SACS	Support to Aviation Control Service	SID	Sudden Ionospheric Disturbance
SAG	Sagamore Hill (RSTN, radio observatory)	SIDC	Solar Influences Data analysis Center
SAM	Solar Aspect Monitor (SDO) - No longer operational	SILSO	Sunspot Index and Long-term Solar Observations
SAR	(1) Superactive region; (2) Synthetic Aperture Radar	SIR	Stream Interaction Region
sat(s)	satellite(s)	SIS	Solar Isotope Spectrometer (ACE)
SATCOM	Satellite Communications	SITEC	Sudden increase of total electron content
SBAS	Satellite (Space) -based augmentation systems		
SBC	Sector Boundary Crossing		



Space Weather Introductory Course

SLP	Sweeping / Segmented / Single/ Split / Spherical Langmuir Probe	STIX	X-ray Spectrometer / Telescope (SoLo)
SMART-L	Signaal Multibeam Acquisition Radar for Targeting, L-band	SUVI	Solar Ultraviolet Imager (GOES16-)
SMM	Solar Maximum Mission (1980- 1989)	Sv	Sievert (J/kg ; dose equivalent radiation: equivalent biological effect of the deposit of a joule of radiation energy in a kilogram of human tissue)
SN, S _n	Sunspot Number	SVI	San Vito (RSTN, radio observatory)
SNAP	Spring – Negative – Autumn – Positive (CHs)	SW	(1) Space weather ; (2) Solar wind
SoFAST	Solar Flare Automated Search Tool	SWACI	Space Weather Application Center – Ionosphere (DLR)
SOHO	SOLar & Heliospheric Observatory	SWAP	Sun Watcher using APS detector and image Processing (PROBA2)
SOON	Solar Observing Optical Network (USAF/AFWA)	SWARM	Three identical satellites measuring Earth's MF (ESA)
SOT	(1) Space Object Tracking ; (2) Solar Optical Telescope (Hinode)	SWAVES	STEREO/WAVES instrument (STEREO)
SOTERIA	Solar-Terrestrial Investigations and Archives (EU/FP7)	SWE	Space WEather
SPA	Sudden Phase Anomalies	SWEPAM	Solar Wind Electron, Proton, and Alpha Monitor (ACE)
SPE	Solar Proton Event	SWF	ShortWave Fadeouts
SPENVIS (-NG)	Space Environment Information System (- Next Generation)	SWHV	Space weather heliviewer (jHV)
SPWX	Space Weather (military)	SWOP	Space Weather Operations group (SIDC)
sr	steradian	SWPC	Space Weather Prediction Center
SRB	Solar radio burst	SwRI	Southwest Research Institute
SREM	Standard Radiation Environment Monitor (INTEGRAL)	SWRC	Space Weather Research Center
SSA	Space Situational Awareness	SWS	Space Weather Services (Australia)
SSB	Solar Sector Boundary	SWSC	Space Weather and Space Climate journal
SSC	(1) STEREO Science Center; (2) Storm Sudden Commencement	SWx	Space weather
SSCC	SSA Space Weather Coordination Centre	SXI	Solar X-ray Imager (GOES12- 15)
SSN	SunSpot Number	SXR	Soft x-rays
SSR	(1) Solid state recorder; (2) Secondary Surveillance Radar	SXT	Soft x-rays telescope (Yohkoh)
ST-A, ST-B	STEREO-A(head), STEREO- B(ehind) spacecraft	SYM-H	A geomagnetic index (nT) similar to the Dst index, but with 1-min time resolution and different stations
STAFF	Solar Timelines viewer for AFFECTS	τ	Ionospheric slab thickness (meters)
STCE	Solar-Terrestrial Centre of Excellence		
STEC	Slant TEC		
STEREO	Solar-Terrestrial Relations Observatory		



Space Weather Introductory Course

T	(1) Tesla (1 Tesla = 10.000 Gauss) (2) Temperature	V	Volt
TACSAT	Tactical Satellite Communications	v	speed
TEC	Total Electron Content	VEX	Venus Express (2005-2015)
TECu	TEC unit ($10^{16}e\text{-}m^{-2}$)	VHF	Very High frequency (30-300 MHz)
THz	Terahertz ($10^{12}/s$)	VLB	Very Low Frequency (3-30 kHz)
TID	Travelling Ionospheric Disturbance	VTEC	Vertical TEC
TIMED	Thermosphere Ionosphere Mesosphere Energetics and Dynamics (NASA)	VUB	Vrije Universiteit Brussel
TMR	Triple-modular redundancy	VUV	Vacuum ultraviolet
TRACE	Transition Region and Coronal Explorer (1998-2010)	W	Watt
TSI	Total Solar Irradiance	W/m ²	Watt per square meter
TX	Transmitter	WAAS	Wide Area Augmentation System (USA)
UAV	Unmanned Aerial Vehicle	WAMS	Wide Area Monitoring System
UHF	Ultra High Frequency (300 MHz - 3 GHz)	WAVES	Radio and plasma wave investigation (WIND, STEREO)
UiT	University of Tromsø ; Arctic University of Norway	WDC	World Data Center
UK	United Kingdom	WL	White light
ULB	Université Libre de Bruxelles	WLF	White-light flare
UNCOPUOS	United Nations Committee on the Peaceful Use of Outer Space	WMFR	Weighted mean flare rate
UNOOSA	United Nations Office for Outer Space Affairs	WMO	World Meteorological Organization
URSI	International Union of Radio Science – Union Radio-Scientifique Internationale	WP	Work Package
US(A)	United States (of America)	WRC	World Radiation Center
USAF	United States Air Force	WS	Workshop
USET	Uccle Solar Equatorial Table	WTD	waiting-time distribution
USGS	US Geological Survey	X-class flare	Extreme x-ray flare
UT(C)	(Coordinated) Universal Time	XRS	X-ray sensor (GOES)
UV	Ultraviolet	Yohkoh	Japanese solar mission (1991-2001)
Φ_{60}	Scintillation index (phase)	yr	year
		Z	Proton number
		Zr	Zirconium
		ZTD	Zenith tropospheric Total Delays