

# Abbreviations for Scientific Programs

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## 1 General Points

This document describes programming *abbreviations*. Abbreviations are quite general: Any shortened form of a word, phrase, or concept is an abbreviation. Hence, abbreviations can be acronyms, initialisms, or nicknames. Concise abbreviations for variable names are especially important because they help make a program become self-documenting and thus easier to maintain. Consistent abbreviations across programs are important because then whole suites of code can be updated and improved in a more modular fashion. An alternative method of naming variables is the *Hungarian notation* method originated by Charles Simonyi of Microsoft <http://msdn.microsoft.com/library/default.asp?url=/library/en-us/dnvsngen/html/hunganotat.asp>

### 1.1 Abbreviations

Abbreviations are usually used for variable names in a program. Naming a variable appropriately often speeds up programming by reducing the introduction of bugs to the program, and by making future maintenance easier. An effective abbreviation has a number of desirable qualities.

- Concise
- Unambiguous
- Easy to remember
- Distinct from English

Here are some guidelines which help in creating abbreviations with these qualities:

1. A common acronym, if it exists, is preferable to creating a new abbreviation (e.g., SWCF).

2. Abbreviations which do not contain common letter combinations of the English language are much easier to program. Searching and replacing uncommon letter combinations lessens the risk of corrupting plain text and comments in the program. For example, using `flx` rather than `flux` saves only one letter, but makes code maintenance much easier.
3. Phonetic abbreviations are often superior mnemonics. Use, e.g., `nvr` rather than `env` for “environment”. Phonetic abbreviations make it easier to use consonants, which are better than vowels in abbreviations.
4. All things being equal, three letter abbreviations, or groups of them, are best. Three letters are easy to remember yet there are enough permutations to abbreviate almost atomic concept into a three letter abbreviation.
5. Single letter abbreviations, e.g. “`t` = temperature”, are always a mistake. It is nearly impossible to perform a quick search or search-and-replace on a single letter variable.
6. Sometimes an abbreviation is an acronym but is not capitalized. Capitalize the abbreviation when it is common (e.g., `SWCF`), but leave it lowercase when it is uncommon (e.g., `mpc`).

## 1.2 Variable Names

Use underscores to aggregate abbreviations into longer groups which compose a variable name. Underscores are easier to proofread than the X-style capitalization method, e.g., `flx_bb_dwn_sfc` vs. `FlxBbDwnSfc` or `FluxBroadbandDownSurface`. Variables names constructed in this manner have the desirable property that, when they are alphabetized, related variables are grouped together.

## 1.3 Definitions

Often an abbreviation is used to keep a quantity distinct from a related but distinct quantity. In these cases the abbreviations are called *antonyms*. In the list, the antonym of a given definition is indicated by “*ant.*”. Occasionally an abbreviation has a synonym, too. In the list, the synonyms are indicated by “*syn.*”.

The abbreviation is followed by the definition. In some cases the definition has multiple related meanings—these are separated by commas, e.g., “`abs` = absorption, absorbed, absorbing”.

In a few cases, the definition has multiple distinct meanings—these are separated from one another by “or”, e.g., “`aer` = aerosol, aerosol-laden (turbid), or aerodynamic”.

# 2 Abbreviations

Abbreviations of business, financial, and travel terms:

AA Adverse Action

AC	Authorization Code
AC70	fxm (Access Code 70?)
AF	Annual Fee
AGC	Amazon Gift Card
AOR	App-O-Rama, Application-O-Rama
AP	Amazon Payments
AW	AwardWallet
AX	American Express
BB	Bluebird
BC	Bancorp
BF	BeFrugal
BP	Bill Pay
BX	Business Expense
CA	Cash-Advance
CB	Cash-Back or Category Bonus
CC	Credit Card
CI	Credit Issuer
CK	Credit Karma
CL	Credit Limit
CRA	Credit Rating Agency
CSR	Customer Service Representative
DC	Debit Card
EF	ExpertFlyer.com
FA	Fraud Alert
FR	Financial Review
FT	FlyerTalk
GB	GoBank
GC	Gift Card
GCB	GE Capital Bank
GCM	Gift Card Mall
GGD	Grocery/Gas/Drugs
GP	Google Play
GS	Gas Station
GW	Google Wallet
HD	Home Depot
HP	Hard Pull
Kate	Walmart ATM?
KV	Kiva
LL	Load Limits
MB	Metabank
MC	MoneyCenter (in Walmart) or Money Card (Walmart product) or MasterCard
MGC	Metabank Gift Card
MO	Money Order
MS	Manufactured Spend
MVD	MyVanilla Debit Card

NAF	No Annual Fee
NF	No Fee
OD	Office Depot
OM	OfficeMax
OSS	Office Supply Store
OV	One Vanilla
OVGC	OneVanilla Gift Card
PPF	Purchased for Friend (e.g., GCs)
PP	PayPal
PPMC	PayPal MyCash
PPRP	PayPal Reload Pack
RA	Rite-Aid
RB	Retention Bonus
RPC	Reloadable Prepaid Card (VRC, PPRP)
RR	fxm (like BB at WM?)
Rite Aid	Rite Aid
SB	Starbucks
S4C	Savingforcollege
SM	Send Money
SP	Soft Pull or Shopping Portal
SRV	(AmEx) Serve
RDB	REDbird = Target Prepaid REDcard
ST DL	Suntrust Delta (debit card)
TCB	TopCashBack
USB	US Bank
VGC	Vanilla Gift Card (not Visa GC by convention)
VR	Vanilla Reload
VRC	Vanilla Reload Card
VSE	Visa Savings Edge
VVC	Vanilla Visa Card
WM	WalMart
WP	fxm
ACH	Automated Clearing House
ADR	American Depository Receipt
ADS	American Depository Share
AFR	Applicable Federal Rate
AGI	Adjusted Gross Income
FTR	Effective Tax Rate
MAGI	Modified Adjusted Gross Income
AMC	After Market Closes
APR	Annual Percentage Rate
APY	Annual Percentage Yield
ARL	Airline Record Locator
ARM	Adjustable Rate Mortgage
ATN	Airline Ticket Number (13 digit number)

BCON	Beacon Power
BIC	Bank Identifier Code
BK	Bankruptcy
BMO	Before Market Opens
BP	La Banque Postale
C1	CapitalOne
CAP	Capital Accumulation Payment
CB	Carte Bleue
CBP	Customs & Border Protection
CCP	Compte Courant Postal (checking account, carte bleu too)
CDW	Collision Damage Waiver
CPH	Copenhagen stock exchange
CSC	Card Security Code (three digit credit card security number)
COAF	Capital One Auto Finance
CTC	Child Tax Credit
HOH	Head of Household
ETC	Electronic Travel Certificate (monetary voucher towards future purchases)
CVN	(Credit) Card Verification Number
CVV2	Specific Type of CVN
DAB	Distributeurs Automatiques de Billets
DBP	Defined Benefit Plan
DCP	Defined Contribution Plan
STL	Short-term Loan
MTL	Mid-term Loan
LTL	Long-term Loan
DDG	ProShares Short Oil & Gas ( $-1 \times$ DJIA oil) ETF
DDM	ProShares Ultra Dow30 ( $+2 \times$ DJIA) ETF
DEQM	Double Elite Qualifying Miles
DFSA	Dependent Care Flexible Spending Account
DHS	Department of Homeland Security
DJIA	Dow Jones Industrial Average
DMB	Daily Minimum Balance
DMCSB	Daily Minimum Combined Share Balance (sum of all accounts)
DOG	ProShares Short Dow30 ( $-1 \times$ DJIA) ETF
DUG	ProShares UltraShort Oil & Gas ( $-2 \times$ DJIA oil) ETF
DXD	ProShares UltraShort Dow30 ( $-2 \times$ DJIA) ETF
EAFE	Europe, Australasia, and Far East index
EBITDA	Earnings Before Interest, Taxes, Depreciation, and Amortization
ECN	Electronic Communication Network
EDC	Direxion Daily Emerging Markets Bull ( $+3 \times$ MSCI EMI) ETF
EEM	iShares MSCI EMI (emerging markets) ETF
EEV	ProShares UltraShort emerging market ( $-2 \times$ MSCI EMI) ETF
EFA	iShares MSCI EAFE (large-cap foreign G7 stock) ETF
EIN	Employer Identification Number ( <i>syn.</i> EIN)
EMA	Exponential Moving Average

EMI	Emerging Markets Index
EMV	Europay MasterCard Visa (standard for smart card)
EOB	Explanation of Benefits
EPS	Earnings Per Share
EQM	Elite Qualifying Miles
ETA	Electronic Travel Authority (Australian visa)
ETF	Exchange Traded Fund (tracks an index, e.g., DJIA)
FAA	Fly American Act or Federal Aviation Administration
FCU	Federal Credit Union
FEIE	Foreign Earned Income Exemption
FICA	Federal Insurance Contributions Act (FICA = OASDI + MEDICARE?)
FMV	Fair Market Value
FRE	Freddie Mac
FRM	Fixed Rate Mortgage
FRR	Flat-Rate Reimbursement
FSA	Flexible Spending Account
FSB	Federal Savings Bank
FTF	Foreign Transaction Fee (credit card fee on currency exchanges)
FTIN	Federal Tax Identity Number
GLD	Gold (bullion) tracking ETF
GM	General Motors
GOES	Global Online Enrollment System
GS	Goldman Sachs
HAPC	Highest Average Plan Compensation
HFSA	Health Flexible Spending Account
HTB	Hard-To-Borrow (fee)
HYMMBA	High Yield Money Market Banking Account
IOSA	InterestPlus Online Savings Account
ITIN	Individual Tax Identity Number ( <i>syn.</i> FTIN)
KBB	Kelley Blue Book
LTV	Loan-To-Value ratio
LVS	Las Vegas Sands
MACD	Moving Average Convergence/Divergence
MAW	Monthly Automated Withdrawal
MC	Master Card
MCB	Medical Contributions Base
MChip	MasterCard implementation of EMV smart card standard
ME	Moving Expenses
MIE	Meals and Incidental Expenses
MSCI	Morgan Stanley Capital International
MTDC	Modified Total Direct Costs (overheat rate)
MTL	Mechel OAO (ADR)
CBAF	Cross-Border Assessment Fee (charged by MC and Visa for FX)
NASDAQ	National Association of Securities Dealer Automated Quotation system
NAV	Net Asset Value (share price)

NCE	No-Cost Extension
NPE	Non-Passenger Escort
OASDI	Old Age, Survivors, and Disability Insurance
OCTFCU	Orange County Teacher's Federal Credit Union
OFX	Office Financial Exchange (file format/extension)
OSA	Online Savings Account
OTC	Over-the-Counter (pseudo stock exchange)
OTCBB	Over-the-Counter Bulletin Board (pseudo stock exchange)
OTM	Out-of-The-Money
PAI	Personal Accident Insurance
PCOR	Preliminary Change of Ownership Report
PINK	Telephone-based (pseudo stock exchange)
PNR	Passenger Name Record (record locator)
QDRO	Qualified Domestic Relations Order
QFX	Quiken Financial Exchange (file format/extension)
QID	ProShares UltraShort QQQ ( $-2\times$ NASDAQ)
QOQ	Quarter-over-quarter (e.g., QOQ EPS)
QQQ	Any NASDAQ-tracking ETF
QQQQ	PowerShares QQQ ( $+1\times$ NASDAQ)
RAQVAM	Risques Autres que Véhicule à Moteur (insurance policy covering risks other than motor vehicle)
RIB	Relevé d'Identité Bancaire
RL	Record Locator
RSI	Relative Strength Index
S31	SEC Section 31 Fee (based on value of trade)
SDS	ProShares UltraShort S&P500 ( $-2\times$ S&P500)
SFFCU	SchoolsFirst Federal Credit Union
SG	Société Générale
SKF	ProShares UltraShort Financials ( $-2\times$ DOW) ETF
SMA	Simple Moving Average
SNS	Saturday-Night-Stay
SPDR	Standard & Poor's Depository Receipt (aka "spider"), tracks S&P500
SPY	S&P500-tracking ETF
SSO	ProShares Ultra S&P500 ( $+2\times$ DOW) ETF
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TAF	Trading Activity Fee (based on number of shares traded)
TEQM	Triple Elite Qualifying Miles
TER	Travel Expense Report
TID	Travel of Indefinite Duration
TIP	Tax Savings on Insurance Premiums
TRF	Travel Reimbursement Form
TTC	Toutes Taxes Comprises (tax included)
TTP	Trusted Traveler Program
TVA	Taxe à la Valeur Ajoutée (value-added tax)
TZA	Direxion Small Cap Bear 3X Shares ( $-3\times$ Russell 2000 small cap)
URP	Ultimate Rewards Points

AXD	American Express Dollars
MRP	Membership Rewards Points (AmEx)
BAA	British Airways Avios
HHP	HHonors Points
UAUA	United Airlines
UCRP	University of California Retirement Plan (pension)
UCRSP	University of California Retirement Savings Plan (403b + 457b + DC)
VAM	Véhicule à Moteur (insurance policy covering motor vehicles)
VSDC	VISA implementation of EMV smart card standard
VWDRY	Vestas Wind ADR (+3× VWDRY = VWS)
VWS	Vestas Wind Systems
VWSYF	Vestas Wind ADR (+1× VWSYF = VWS)
XLE	Select Sector Energy sector SPDR ETF
XLF	Financial sector SPDR ETF
XLK	Technology sector SPDR ETF
XLP	Consumer staples sector SPDR ETF
XLY	Consumer discretionary sector SPDR ETF
NSC	Negotiated Salary Component
NSTP	Negotiated Salary Trial Program
SBS	Scale-Based Salary
TUCS	Total UC Salary
adm	annual decimal rate ( <i>ant.</i> annual percentage rate)
amz	Amazon.com
apr	appreciation or annual percentage rate ( <i>ant.</i> annual decimal rate)
bc	booking class
bp	boarding pass
brk	breakfast
chs	Chase
cpn	coupon
crd	credit (card)
eqf	Equifax
xpr	Experian
trn	TransUnion
fco	FICO
ctr	contract
cash	cash
dcp	defined contribution plan
ddc	deduction
df	duty-free
dml	default mail address
dnr	dinner
dpr	depreciation
dsc	discount
dyc	daycare
eqt	equity



fbc fare basis code  
fdl firstname.lastname  
fdr federal  
ff frequent flyer  
ffdl fancy firstname.lastname  
ffm frequent flyer miles  
ffp frequent flyer program  
fnm first name  
fnn financial  
fx foreign exchange  
fxr foreign exchange rate  
gml Google mail (Gmail) address  
gt gate  
gtc good-until-cancelled  
gvt government  
hm home (*syn.* hm), (*ant.* ofc)  
hse house (*syn.* hm), (*ant.* ofc)  
htl hotel  
lfd last four digits  
lml Lonely mail address  
lnc lunch  
lnm lastname (surname)  
lp Lonely Planet  
mdc medical  
thk travel hacking (thacking)  
mny money  
mrp manufacturer's retail price  
mrt mortgage  
ncm income  
nr-cr non-recurring (*ant.* rcr)  
nsr insurance  
nqr inquiry  
ntr interest  
nvc invoice  
nvs invest, investment  
oa operating airline  
ofc office (*ant.* hse), (*ant.* hm)  
payg pay-as-you-go  
phn phone  
pmt payment  
po purchase order  
prc price, purchased  
prn principal  
prp property  
ptn patent

rht	rhetoric
rmb	reimburse
rnt	rental
rsr	reservation
rtr	retirement
sgn	signature (i.e., Visa Signature card)
s/h	shipping & handling
slr	salary
sml	spam mail address
snk	snack
sp	store price
stt	state
tbf	time between flights
trm	terminal
trv	travel
uml	University mail address
vs	Visa
wts	with tax and shipping (i.e., all-inclusive price)
xpn	expense
ytd	year-to-date

Physical units and dimensions:

B byte

Health:

GAD	Generalized Anxiety Disorder
HSP	Highly Sensitive Person
IBS	Irritable Bowel Syndrome
PF	Plantar Fasciitis
PP	Placenta Previa
RCT	Relational Cultural Theory
RMD	Recurrent Major Depression
TGL	Triglycerides
fml	family
frnd	friend
gft	gift
hlt	health
ku	kid unfriendly
lv	love
msc	music
nic	nothing in common
potm	pleasures of the mind
ptr	poetry
rlt	relationship

**slf** self  
**swm** swimming  
**sx** sex  
**tgtbt** too good to be true

## Consumer electronics

**1080i** Interlaced (not progressive) scan HDTV 1920x1080 video mode (*ant.* 1080p)  
**1080i60** 1080i HDTV mode at 60/,fps (an ATSC standard, common in OTA broadcast)  
**1080p** Progressive (not interlaced) scan HDTV 1920x1080 video mode, aka “Full HD”  
**1080p24** 1080p HDTV mode at 24/,fps (an ATSC and video mastering standard)  
**1080p30** 1080p HDTV mode at 30/,fps (an ATSC standard)  
**1600p** Progressive (not interlaced) scan HDTV 2560x1600 video mode (*ant.* 1080i)  
**720p** Progressive (not interlaced) scan HDTV 1280x720 video mode (*ant.* 1080p)  
**720p60** 720p HDTV mode at 60/,fps (an ATSC standard, common in OTA broadcast)  
**A/V** Audio/Video  
**A2DP** Advanced Audio Distribution Profile (Bluetooth profile) for HQ stereo  
**AFH** Adaptive Frequency-hopping spread spectrum (Bluetooth technology)  
**AMP** Alternate MAC PHY (Bluetooth technology)  
**ATA** Advanced Technology Attachment (storage-to-bus adaptor) (*syn.* IDE)  
**ATSC** Advanced Television Systems Committee (commences 20090217)  
**AVI** Audio Video Interleave  
**AVOD** Audio/Video On Demand (*syn.* VOD)  
**AVRCP** Audio/Video Remote Control Profile (Bluetooth profile) for remote controls  
**Anynet** Samsung brand-name for CEC (HDMI remote control language) (*syn.* CEC)  
**BNC** Bayonet Neill-Concelman (RF connector to terminate coaxial cable)  
**BT** Bluetooth  
**BT 1.1** Bluetooth Standard, c. 2002 includes RSSI  
**BT 1.2** Bluetooth Standard, c. 2003 includes AFH, eSCO  
**BT 2.0** Bluetooth Standard, c. 2004 includes EDR  
**BT 2.1** Bluetooth Standard, c. 2007 includes EIR, EPR, SSP, NFC  
**BT 3.0** Bluetooth Standard, c. 2009 includes AMP  
**Bpp** bytes per pixel  
**CEA** Consumer Electronics Association  
**CEC** Consumer Electronics Control (HDMI remote control language)  
**CRT** Cathode Ray Tube  
**CUDA** Compute Unified Device Architecture  
**DAB** Digital Audio Broadcasting standard (*syn.* Eureka 147)  
**DAB+** Revised DAB standard  
**DFP** Digital Flat Panel  
**DL** Dual-Link  
**DLNA** It stands for Digital Living Network Alliance  
**DM** Display Mode  
**DMS-59** 59-Pin connector that supports two DVI Dual Link digital channels or two  
**DP** DisplayPort, 20-pins (*ant.* HDMI)

DP-1.0	DP standard, c. 200605
DP-1.1	DP standard, c. 200801, supports fiber optic cables, DPCP, HDCP
DP-1.1a	DP standard, c. 200802, supports eDP
DP-1.2	DP standard, c. 2009, supports double bandwidth, MiniDP connector
DPCP	DisplayPort Content Protection (DRM), based on 128-bit AES encryption
DRM	Digital Restrictions Management
DTV	Digital Television
DVI	Digital Visual Interface (older than HDMI, DP)
DVI-A	DVI Analog (analog only)
DVI-D	DVI Digital (digital only, can be single- or dual-link)
DVI-D DL	DVI-D Dual Link: Capable of WQXGA= 2560 × 1600 60 Hz
DVI-D SL	DVI-D Single Link: Capable of WUXGA= 1920 × 1200 60 Hz
DVI-DL	DVI Dual-Link. Contains second data link. (NB: ambiguous! Could be DV
DVI-I	DVI Integrated (digital & analog, can be single- or dual-link)
DVI-M1-DA	DVI Integrated (digital, analog, & USB)
ECN	Engineering Change Notice
EDID	Extended Display Identification Data
EDGE	Enhanced Data rates for GSM Evolution
EDR	Enhanced Data Rate (Bluetooth technology)
EDTV	Enhanced-definition Television (DTV, progressive scan, analog resolution, 6
EIR	Extended Inquiry Response (Bluetooth technology)
EPHC	Epson PowerLite Home Cinema (projector)
EPR	Encryption Pause Resume (Bluetooth technology)
ExpressCard	Hardware standard for cards. Supports both PCIe and USB 2.0 buses. Eith
ExpressCard/34	34 mm ExpressCard (rectangular shape)
ExpressCard/54	54 mm ExpressCard (L-shaped)
ExtUSB	Proprietary (by HTC) USB 11-pin connector backwards compatible with M
FF	Form Factor
FPD	Flat Panel Display
GPGPU	General-Purpose computation on Graphics Processing Units
GPU	Graphical Processing Unit
GPU	Graphics Processing Units
GTF	Generalized Timing Formula
HD Radio	brand-name for iBiquity's IBOC technology, US Standard
HDCP	High-bandwidth Digital Content Protection (DRM)
HDMI	High-definition Multimedia Interface (newer than DVI, older than DP) ( <i>an</i>
HDMI Type A	Single link (19 pins) connector. Does not support 2560x1600.
HDMI Type B	Dual link (29 pins) connector. Supports 2560x1600.
HDMI Type C	Dual link (29 pins) mini-connector. Supports 2560x1600.
HDMI 1.0	HDMI Standard, c. 2002, includes 1080p/UXGA
HDMI 1.1	HDMI Standard, c. 2004, includes DVD audio
HDMI 1.2	HDMI Standard, c. 2005, includes CEC features
HDMI 1.3	HDMI Standard, c. 200606, includes Dolby TrueHD, DTS-HD, defined cabl
HDMI 1.3a	HDMI Standard, c. 200611, includes cable, CEC, Type C clarifications
HDMI 1.3b	HDMI Standard, c. 200703, includes compliance testing revisions

HDMI 1.3b1	HDMI Standard, c. 200711, includes Type C testing revisions
HDMI 1.3c	HDMI Standard, c. 200808, includes active cable testing
HDMI 1.4	HDMI Standard, c. 200905, includes HDMI ethernet, 3840x2160p and 4096p
HDTV	High Definition TV, 1920 × 1080 resolution, 16:9 aspect ratio
HDTV	High-definition Television (DTV, 1280x720=720p, 1920x1080=1080i, 1920x1080p)
HDTV DM DVI-DL	1920 × 1080 85 Hz with GTF blanking (2 × 126 MHz)
HDTV DM DVI-SL	1920 × 1080 60 Hz with CVT-RB blanking (139 MHz)
HSDPA	High Speed Downlink Packet Access, improved W-CDMA protocol
HSPA	High Speed Packet Access: Combination of HSDPA and HSUPA, capable of 3.1 Mbps
HSPA+	Evolved High Speed Packet Access, improved HSPA capable of 42/11 Mbps
HSUPA	High Speed Uplink Packet Access, improved W-CDMA protocol
HTC	High Tech Computer Corporation
HTC Desire	Android PDA, c. 201002; optical trackpad, runs HTC-Sense, 480 × 800 resolution
HTC Dream	Android PDA, c. 200809, branded T-Mobile G1; 320 × 480 resolution, includes trackball
HTC Evo 4G	Android PDA, branded Sprint Evo, c. 201006; 480 × 800 resolution, 8 Mp w/LE
HTC G2	Android PDA, c. 201009, branded T-Mobile G2, 3.7" WVGA, 800 MHz CPU
HTC Hero	Android PDA, c. 200912, branded T-Mobile G2 Touch; includes 3.5 mm audio jack
HTC Incredible	Android PDA, branded Droid Incredible, c. 201005; 480 × 800 resolution, 8 Mp w/LE
HTC Legend	Android PDA, branded Sprint Hero2, c. 201004; 320 × 480 resolution, 5 Mp w/LE
HTC Magic	Android PDA, c. 200907, branded T-Mobile G2, myTouch 3G; lacks keyboard
HTC Passion	Android PDA, c. 201001, branded Google Nexus One; noise-canceling microphone
HXGA	Hex[adecuple] Extended Graphics Array, 4096 × 3072 resolution, 4:3 aspect ratio
IBOC	In-Band On-Channel (way of adding digital to analog broadcasts)
IEC	International Electrotechnical Commission
LDI	LVDS Display Interface (standard for connecting graphics card to LFP using LVDS)
LFP	Local Flat Panel
LGD	LG Display (LCD panel supplier), formerly ( <i>syn.</i> LPL))
LPL	LG Phillips (LCD panel supplier, now ( <i>syn.</i> LGD))
LTE	Long Term Evolution (based on GSM, successor to HSPA) capable of 300 Mbps
LVDS	Low-voltage Differential Signaling (low-power electrical signaling system) (c. 2000)
Mini PCIe, PCI-E	PCI Express Mini Card (expansion card for PCIe bus) (c. 2005)
Mini-TOSLINK	Miniature TOSLINK (found on Apple computers)
MiniDP	Miniature DisplayPort (newest standard), 20-pins ( <i>ant.</i> HDMI)
Motorola Droid	Android PDA, carrier Verizon, branded Motorola Milestone (w/GSM), c. 200909
Motorola Droid X	Android PDA, carrier Verizon, c. 201007; 480 × 848 resolution, 8 Mp w/LE
NFC	Near Field Communication (Bluetooth technology)
NFC	Near Field Communication
NTSC	National Television System Committee, broadcasts at 640x480=480i
OTA	Over-The-Air (TV broadcasting signal)
OTG	On-The-Go (terminology for portable devices, e.g., PDAs)
PAL	Broadcasts at 768x576=576i
PATA	Parallel Advanced Technology Attachment (older, slower than SATA) ( <i>ant.</i> IDE)
PBP	Picture-By-Picture
PC, PCMCIA Card	Hardware card type (c. 1991, superseded by ExpressCard)
PCI	Peripheral Component Interconnect (c. 1993, older, different FF than PCI-E)

PCI-X	PCI eXtended (c. 1998, newer than PCI, older than PCIe) ( <i>ant.</i> PCIe)
PCIe, PCI-E	PCI Express (c. 2004, newer than PCI and PCI-X) ( <i>ant.</i> PCI-X)
PCMCIA	Personal Computer Memory Card International Association (refers to hard
PDA	Personal Digital Assistant
PIP	Picture-In-Picture
QXGA	Quad eXtended Graphics Array, 2048 × 1536 resolution, 4:3 aspect ratio
QXGA DM DVI-DL	2048 × 1536 75 Hz with GTF blanking (2 × 170 MHz)
RCA	Radio Corporation of America (A/V adaptor plug)
RIHD	Onkyo brand-name for CEC (HDMI remote control language) ( <i>syn.</i> CEC)
RSSI	Received Signal Strength Indicator (Bluetooth technology)
S/PDIF	Sony/Philips Digital Interconnect Format (digital audio signal protocol) ( <i>syn.</i> S/PDIF)
SATA	Serial Advanced Technology Attachment (storage-to-bus adaptor) ( <i>ant.</i> PATA)
SCSI	Small Computer Systems Interface (communications protocol for high-perfor
SDTV	Standard-definition Television (DTV, interlaced scan, analog resolution, 640 × 480)
SL	Single-Link
SSP	Secure Simple Pairing (Bluetooth technology)
SXGA	Super eXtended Graphics Array, 1280 × 1024 resolution, 5:4 aspect ratio
SXGA DM DVI-SL	1280 × 1024 85 Hz with GTF blanking (159 MHz)
Samsung	Android PDA, c. 201012, carrier T-Mobile, branded Google Nexus S; 480 × 800
Samsung Epic 4G	Android PDA, c. 201007, branded Samsung Epic;
TAA	Trade Agreement Act (computer purchase compliance-related)
TMD5	Transition Minimized Differential Signaling (used in DVI, HDMI) ( <i>ant.</i> LVDS)
TOSLINK	TOSHIBA-LINK (optical fiber connector used for audio signals)
U160	SCSI variety emulated by IDE RAID farm
USB	Universal Serial Bus
USB EMU	Enhanced mini-USB connector (EMU) (11-pin, 3 × 7 mm rectangle, one beveled corner)
USB Micro-A	Micro USB Standard-A connector (1.5 × 7 mm)
USB Micro-AB	Micro USB Dual Standards A & B connector (5-pin, 1.5 × 7 mm rectangle, one beveled corner)
USB Micro-B	Micro USB Standard-B connector (5-pin, 1.5 × 7 mm, two beveled corners)
USB Mini-A	Miniature USB Standard-A connector (5-pin, 3 × 7 mm rectangle, two beveled corners)
USB Mini-AB	Miniature USB Dual Standards (A & B) connector (3 × 7 mm)
USB Mini-B	Miniature USB Standard-B connector (5-pin, 3 × 7 mm rectangle, all square corners)
USB-A	USB Standard-A connector (4-pin, flattened rectangle)
USB-B	USB Standard-B connector, carries power (4-pin, square with beveled corners)
USB 1.0	USB “Low-Speed” (187.5 kB s <sup>-1</sup> ) Standard, c. 1996
USB 1.1	USB “Full-Speed” (1.5 MB s <sup>-1</sup> ) Standard, c. 1998
USB 2.0	USB “High-Speed”, “Hi-Speed” (60 MB s <sup>-1</sup> ) Standard (includes “micro-USB”)
USB 3.0	USB “SuperSpeed” (625 MB s <sup>-1</sup> ) Standard, c. 2008
UXGA DM DVI-SL	1600 × 1200 60 Hz with GTF blanking (161 MHz)
UXGA, UGA	Ultra eXtended Graphics Array, 1600 × 1200 resolution, 4:3 aspect ratio
VDPAU	Video Decode and Presentation API for Unix
VESA	Video Electronics Standards Association
VGA	Video Graphics Array (an analog-standard interface) (640 × 480 resolution)
VIERA Link	Sony brand-name for CEC (HDMI remote control language) ( <i>syn.</i> CEC)
VIERA-Cast	Panasonic technology for streaming multimedia from Internet to HDTVs

VOD	Video On Demand ( <i>syn.</i> AVOD)
W-CDMA	Widband Code Division Multiple Access, 3G mobile telecommunication standard
WFP	Widescreen Flat Panel
WQUXGA	Wide Quad Ultra Extended Graphics Array, 3840 × 2400 resolution, 16:10 aspect
WQUXGA DM DVI-DL	3840 × 2400 33 Hz with GTF blanking (2 × 159 MHz)
WQUXGA DM DVI-SL	3840 × 2400 17 Hz (164 MHz)
WQXGA	Wide Quad eXtended Graphics Array, 2560 × 1600 resolution, 16:10 aspect
WQXGA DM DVI-DL	2560 × 1600 60 Hz with GTF blanking (2 × 174 MHz)
WSXGA, WXGA+	non-standard term for, usually, 1440 × 900 resolution
WSXGA, WXGA+ DM DVI-SL	1440 × 900 60 Hz (107 MHz)
WUXGA	Widescreen Ultra eXtended Graphics Array, 1920 × 1200 resolution, 16:10 aspect
WUXGA DM DVI-SL	1920 × 1200 60 Hz with CVT-RB blanking (154 MHz)
WXGA	Wide eXtended Graphics Array, a non-standard: 1280 × 800 resolution, aspect ratio 4:3
X: Display	The resolution and depth of a given <i>Screen</i>
X: Monitor	Physical display surface
X: RandR	Resize and Rotate (X-Windows extension)
X: Screen	Combination of <i>Monitor</i> with graphics <i>Device</i>
X: Xinerama	
azw	Filename extension for Amazon e-books
bpp	bits per pixel
eDP	Embedded DisplayPort, internal connection standard (graphics cards to notebook)
eSATA	external Serial Advanced Technology Attachment (SATA)
eSCO	Extended Synchronous Connections (Bluetooth technology)
fps	frames per second
knd	Amazon Kindle
mbp	Filename extension for Amazon e-books notes/annotations
pap	Personal Audio Player
pda	Personal Digital Assistant
phl	Filename extension for Amazon e-books icons?
pmp	Personal Media Player
twm	TwinView (NVidia X-display mode)

Geographical places, stations, regions, and features: [this points to sxn:abb](#)

AAr	Antarctic
Arc	Arctic
Brb	Barbados
Brm	Bermuda
Izn	Izaña
SMA	St. Miguel de Allende
SMU	St. Martin d'Uriage
Sv1	Svalbard
ULB	Uriage le Bains
WaD	WAIS Divide

Initials (often used as change markers in source code):

ag Alf Grini  
 bcb Byron C. Boville  
 bee Brian E. Eaton  
 bk Brian Kahn  
 cl Chao Luo  
 csz Charles Sutton Zender  
 dap Diana A. Pataki  
 dlw Daniel L. Wang  
 dmw David M. Williamson  
 fd Florent Dominé  
 jcg Jean-Charles Gallet  
 jmr Jim M. Rosinski  
 jpm Joseph P. McConnell  
 jtk Jeffrey T. Kiehl  
 mat Mark A. Taylor  
 mcb Michael C. Brown  
 mgf Mark G. Flanner  
 mt Michael Tosca  
 nmm Natalie M. Mahowald  
 pjr Philip J. Rasch  
 qh Qin Han  
 rah Rick A. Hansell  
 rlm Ron L. Miller  
 rkr Russell K. Rew  
 sbc Scott Blair Capps  
 swb Stephen W. Berrick  
 xtcb Tami C. Bond

AAA Arctic Absorbing Aerosol  
 AAS Atomic Absorption Spectrometry  
 ABI Application Binary Interface  
 ACADIS Advanced Cooperative Arctic Data and Information Service  
 ACCESS Advancing Collaborative Connections for Earth System Science (NASA ROSES Program)  
 ACE Army Corps of Engineers  
 ACM Association for Computing Machinery  
 ACP Atmospheric Chemistry (NSF GEO AGS Program)  
 ACP Atmospheric Chemistry Program (NSF GEO ATM program) or Advanced Cyberinfrastructure  
 ACRM (NASA) Atmospheric Composition Research and Modeling  
 ADT Anomalous Diffraction Theory  
 AER Atmospheric & Environmental Research  
 AERONET Aerosol Robotic Network  
 AFGL Air Force Geophysical Laboratory  
 AGU American Geophysical Union



AISR	Applied Information Systems Research (NASA ROSES program)
AIX	IBM variant of UNIX used in ESMF
ALD	Active Layer Depth (of permafrost)
ALW	Adiabatic Liquid Water
AMAP	Arctic Monitoring and Assessment Program
AMBT	Air Mass Back-Trajectory
AMSR-E	Advanced Microwave Scanning Radiometer (satellite instrument)
AMWG	(CCSM) Atmospheric Model Working Group
ANENA	Association Nationale pour l'Etude de la Neige et des Avalanches
ANS	Arctic Natural Sciences Program
ANTLR	ANother Tool for Language Recognition
ANWR	Arctic National Wildlife Refuge (ANWAR)
AO	Announcement of Opportunity (NASA RFP) ( <i>syn.</i> RFP), ( <i>syn.</i> FOA), ( <i>syn.</i> CFP)
KNMI	Royal Netherlands Meteorological Institute
CFP	Call for Proposals ( <i>syn.</i> RFP), ( <i>syn.</i> FOA), ( <i>syn.</i> AO)
AOGCM	(Coupled) Atmosphere-Ocean General Circulation Model
API	Application Programmer Interface
GBD	Global Burden of Disease
AR4	Fourth (IPCC Climate) Assessment Report
AR5	Fifth (IPCC Climate) Assessment Report
ARC	(NSF) Division of Arctic Sciences
ARF	Aerosol Radiative Forcing
ARM	Atmospheric Radiation Measurement
ARMA	Auto-Regressive Moving-Average
ASE	Advanced Science and Engineering
ASIRT	Aerosol Snow Ice Radiative Transfer
ASR	Atmospheric System Research (DOE ARM Program)
AST	Abstract Symbol Table
ATM	(NSF) Division of Atmospheric Sciences
ATSR	Along Track Scanning Radiometer and Microwave Sounder
AVHRR	Advanced Very High Resolution Radiometer (satellite instrument)
AVIRIS	Airborne Visible/Infrared Imaging Spectrometer
BAAQMD	Bay Area Air Quality Management District
BATS	Biosphere-Atmosphere Transfer Scheme
BAU	Business As Usual
BEC	Biogeochemistry-Ecosystem-Circulation (model)
BECA	Bureau of Educational and Cultural Affairs (US DoS)
BET	Brunauer-Emmett-Teller (surface area)
BEV	Battery Electric Vehicle
BFI	Buckminster Fuller Institute
BGC	Biogeochemistry
BGCWG	(CCSM) Biogeochemistry Working Group
BGF	Bare Ground Fraction
BIRN	Biomedical Informatics Research Network
BRDF	Bi-directional Reflectance Distribution Function

BTS	Bug Tracking System
CA	Cooperative Agreement
CADD	Centralized Analysis of Distributed Data
CALYPSO	Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observation
CAM	Community Atmosphere Model or Complex Angular Momentum
CARRE	Central Asia Research and Remediation Exchange
CASTNET	Clean Air Status and Trends NETWORK
CAT	Cap And Trade
CBA	Cost-Benefit analysis
CBET	Chemical, Bioengineering, Environmental, and Transport Systems (NSF ENG Division)
CCAP	Center for Clean Air Policy
CCAR	California Climate Action Registry
CCCAC	California Climate Change Advisory Committee
CCM	Community Climate Model
CCN	Cloud Condensation Nuclei
CCNC	Cloud Condensation Nuclei Counter
CCS	Carbon Capture and Storage
CCS	Coal with Carbon Capture and Storage
CCSM	Community Climate System Model
CDC	Center for Disease Control
CDHS	California Department of Health Services
CDI	Cyber-Enabled Discovery and Innovation (NSF Cross-cutting program)
CDL	Common Data Language (textual representation of netCDF data)
CDM	Common Data Model (structural representation of netCDF data)
CDNC	Cloud Droplet Number Concentration
CDO	Climate Data Operators
CDP	Cloud Droplet Probe
CE	Civil Engineering or Corresponding Editor
CEC	California Energy Commission
CENIC	Corporation for Education Network Initiatives in California
CERES	Clouds and Earth's Radiant Energy System (satellite instrument)
CF	Climate & Forecast (metadata convention)
CFC	Chloro-fluorocarbon
CFEP	Center for Educational Partnerships
CFVR	Critical Friction Velocity Ratio
CGS	Centimeter Gram Second units
CH <sub>4</sub>	CH <sub>4</sub>
CHP	California Highway Patrol
CHRS	Center for Hydrometeorology and Remote Sensing
CICE	Los Alamos sea ice model
CIES	Council for International Exchange of Scholars
CISE	Computer and Information Science and Engineering (NSF Directorate)
CITI	Center for Information Technology and Infrastructure
CL	Client Library
CLD	Climate and Large-Scale Dynamics

CLEAN	addressing Climate Change through Learning, Empowerment, Action, and Networking
CLM	Common Land Model
CLMUG	Community Land Model User's Guide
CMG	Climate Modeling Grid
CMIP3	Coupled Model Intercomparison Project
CN	Condensation Nuclei
CNH	Dynamics of Coupled Natural and Human Systems (NSF Program)
CNRS	Centre Nationale de la Recherche Scientifique
CNS	Computer and Network Systems
CO2	CO <sub>2</sub>
CO2e	Equivalent CO <sub>2</sub>
COSMOS	California State Summer School in Mathematics and Science
CP4SMP	Competitive Program for Science Museums and Planetariums Plus Opportunities for N
CPC	Climate Protection Campaign
CPC	Condensation Particle Counter
CPT	Climate Process Team (NSF GEO AGS CLD Program)
CPU	Central Processing Unit
CRDF	Civilian Research and Development Foundation
CRF	Cloud Radiative Forcing
CRM	Column Radiation Model
CRYSTAL-FACE	Cirrus Regional Study of Tropical Anvils and Cirrus Layers—Florida Area Cirrus Expe
CSE	Computer Science and Engineering
CSIM	Community Sea Ice Model
CSP	Concentrated Solar Power
CSRM	Cloud System Resolving Model
CST	Client-Server Traffic
CSTP	Client-Server Traffic Protocol
CSUB	California State University at Bakersfield
CSV	Comma-Separated Value
CTM	Chemistry Transport Model
CVS	Concurrent Versions System
CVWG	(CCSM) Climate Variability Working Group
CWC	Condensed Water Content
CWP	Condensed Water Path
CalEPA	California Environmental Protection Agency
CalIT2	California Institute for Telecommunications and Information Technology
CalREN-2	California Regional Network
CalREN-XD	California Research Network, Experimental Development
CentOS	Community Enterprise Operating System
DADD	Distributed Analysis of Distributed Data
DD	Debian Developer
DDA	Discrete Dipole Approximation
DDD	Data-Driven Discovery
DDPO	Debian Developer's Packages Overview
DDR	Distributed Data Reduction

DEAD	Dust Entrainment And Deposition Model
DEBITS	Deposition of Biogeochemically Important Trace Species
DECADE	Diverse Educational Community and Doctoral Experience
DGA	Division of Grants and Agreements
DHS	Department of Homeland Security
DI	De-Ionized
DIC	Data-Intensive Computing
DIF	Dissolved Iron Fraction
DIRTMAP	Dust Indicators and Records of Terrestrial and MARine Paleoenvironments
DKMS	Dynamic Kernel Module Support
DNMG	Debian New Maintainer's Guide
DOAS	Differential Optical Absorption Spectroscopy
DOCCD	Database of Optical Constants for Cosmic Dust
DODS	Distributed Oceanographic Data Server
DOI	Digital Object Identifier
DPG	Distributed Power Generation
DRUM	Davis Rotating Unit Monitoring
DTG	Depth to Groundwater
DUFISSS	DUal-Frequency Integrating Sphere for Snow SSA Measurement
DWP	Department of Water and Power
E/PO	Education & Public Outreach
EA/WR	Eastern Atlantic/Western Russia
ECE	Electrical and Computer Engineering
ECMWF	European Center for Medium-range Weather Forecasts
ECTNA	Eastern and Central Tropical North Atlantic
EDXRF	Energy Dispersive X-Ray Fluorescence
EECS	Electrical Engineering and Computer Science
EES	Earth and Environmental Science or Environmental Engineering and Sustainability (CI)
EGG-TRAM	Emissions-to-Global-Grid Transfer Routine for Aerosol Microphysics
EHP	Elevated Heat Pump
EID	Emerging Infectious Disease
EMA	Effective Medium Approximation
EMEP	European Monitoring and Evaluation Program
EMMF	Economical Multi-scale Modeling Framework
EMN	Effective Machine Name
ENG	Engineering (NSF Directorate)
ENSO	El Niño-Southern Oscillation
EOS	Earth Observing System
EOSDIS	Earth Observing System Data and Information System
EQSAM	EQilibrium Simplified Aerosol Model
ESA	European Space Agency
ESC	Earth Simulator Center
DSIA	Data Stewardship Interest Area
ESDSWG	Earth Science Data System Working Groups
ESE	Earth Science Enterprise (NASA) or Environment, Society, and Economy (NSF GEO/S)

HWG	(NASA ESDS Conventions for) HDF5 Working Group
ESG	Earth System Grid
ESI	Electronic Supplementary Information
ESIG	Environmental and Societal Impacts Group
ESM	Earth System Model
ESMF	Earth System Modeling Facility
ESS	Earth System Science (Department)
ESTO	Earth Systems Technology Office
SFA	Scientific Focus Area (DOE prgorammatic concept)
EaSM	Earth System Models (NSF Panel)
FAA	Federal Aviation Administration
FAR	First Assessment Report
FC	Forecast Cluster
FDTD	Finite-Difference-Time-Domain
FIM	Fire Injection Module
FIPSE	Fund for the Improvement of Postsecondary Education (DOE program)
FNF	Friends aNd Family
FOA	Funding Opportunity Announcement (DOE RFP) ( <i>syn.</i> RFP), ( <i>syn.</i> AO)
FOCUS	Faculty Outreach Collaborations Uniting Scientists, Students and Schools
FOI	Field Of Interest
FRE	Fire Radiative Energy
FRP	Fire Radiative Power
FSB	Foreign Scholarship Board
FSU	Former Soviet Union
FTA	Fire Thermal Anomaly
FTBFS	Fails to Build from Source
FTE	Full-time Employee
FV	Field site Visits
GADS	Global Aerosol Data Set
GARMA	Generalized Auto-Regressive Moving-Average
GB	Gigabyte
GCM	General Circulation Model
GDP	Gross Domestic Product
GDS	GrADS-DODS Server
GEO	Geosciences (NSF Directorate)
GEON	Geosciences Network
GEOS-CHEM	Goddard Earth Observing System Chemistry Model
GEWEX	Global Energy and Water Cycle Experiment
GFED	Global Fire Emissions Database
GFP	Guidebook for Proposers
GFS	Global File System
GHG	Greenhouse Gas
GHGI	Greenhouse Gas Intensity
GISS	Goddard Institute for Space Studies
GLD	Geomorphology and Land-Use Dynamics

GLIDE	General Land Ice Dynamic Elements (core of GLIMMER)
GLIMMER	Ice Sheet Model of Payne et al.
GLX	OpenGL Extension to the X Window System
GMI	Global Modeling Initiative
GNOME	GNU Object Module Environment
GOA	Geometric Optics Approximation
GOES	Geostationary Earth Orbiting Satellite
GPFS	General Parallel File System
GPL	GNU General Public License
GPL3	GNU General Public License version 3
GRACE	Gravity Recovery and Climate Experiment (satellite instrument)
GRAVITY	Graphics, Visualization, and Imaging Technology
GSC	GEOS-CHEM
GSFC	Goddard Space Flight Center
GW	Global Warming
GWP	Global Warming Potential
Gb	Gigabit
GrADS	Grid Analysis and Display System
H2OH2O	(H <sub>2</sub> O) <sub>2</sub>
H2SO4	H <sub>2</sub> SO <sub>4</sub>
HCFC	Halogenated CFCs
HDF	Hierarchical Data Format
HDF-SDS	HDF Scientific Data Set format (*.hdf files)
HDF4EOS	HDF version 4 EOS data format (*.he2, *.he4, *.hdfeos files)
HDF5EOS	HDF version 5 EOS data format (*.he5 files)
HFCV	Hydrogen Fuel Cell Vehicle
HG	Henry-Greenstein (phase function)
HIPerWall	High-Performance Visualization System for Collaborative Earth System Sciences
HNL	High Nutrient Low Chlorophyll
HPC	High Performance Computing
HPCC	High Performance Computing Center
HPVM	High-Performance Virtual Machines
HSE	Hollow Sphere Equivalent
HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol
HULIS	Humic-like Substances
HUSWO	Hourly United States Weather Observations
IAF	Ice Albedo Feedback
IAMAS	International Association of Meteorology and Atmospheric Sciences
IBL	Internal Boundary Layer
IBM	International Business Machines
IC	International Conferences
IC	Ion Chromatography
ICCID	Integrated Circuit Card Identifier
ICS	Information and Computer Sciences

ICTA	Institut de Ciència i Tecnologia Ambientals (Institute of Environmental Science and Technology)
ICoD	Euro-Mediterranean Centre for Insular Coast Dynamics (ICoD)
IDE	Integrated Drive Electronics (commodity PC hard disks) or Integrated Development Environment
IDL	International Date Line
IFS	Integrated Forecast System
IGPP	Institute of Geophysics and Planetary Physics
II	Information Integration
IIE	Institute of International Education
III	Information Integration and Informatics (NSF CISE IIS Program)
IIPS	Interactive Information Processing Systems
IIS	Information and Intelligent Systems (NSF CISE Division)
IMSI	Integrated Mobile Subscriber Identity
IN	Ice Nuclei
IOM	Institute of Mathematics (Almaty, Kazakhstan)
IOP	Intensive Observing Period
IPA	Independent Pixel Approximation or International Phonetic Alphabet
IPCC	Intergovernmental Panel on Climate Change
IPO	Interprocedural Optimization
IPY	International Polar Year
IRES	International Research Experience for Students (NSF Program)
ISC	International Symposium on Coccidioidomycosis
ISDAC	Indirect and Semi-Direct Aerosol Campaign
ISG	Integrated Sinusoidal Grid
ISHMS	Integrated Surface Hourly Meteorological Station
ISHO	Integrated Surface Hourly Observations
ISSDS	International Symposium on Sand and Dust Storms
ISTC	International Science and Technology Center
ITA	Intent to Adopt
ITD	Ice Thickness Distribution
ITT	Measurement of Pollution in the Troposphere (satellite instrument)
IWC	Ice Water Content
IWP	Ice Water Path
JAMSTEC	Japan Institute of Marine Science and Technology
JC	Journal Club
JISAO	Joint Institute for the Study of the Atmosphere and Ocean
JIT	Just-in-time
JPL	Jet Propulsion Laboratory
KDE	K Desktop Environment
LAC	Light Absorbing Carbon
LAISSSE	LGGE Albedo Integrating Sphere for Snow Experiments
LAN	Local Area Network
LANL	Los Alamos National Laboratory
LAPACK	Linear Algebra PACKage
LBAOP	Long Beach Aquarium of the Pacific
LBF	Large Blocksize Filesystem

LBL	Line-by-line
LEP	Laboratory for Environmental Planning
LES	Large Eddy Simulation
LFS	Large File Support
LGGE	Laboratoire de Glaciologie et Géophysique de l'Environnement (Grenoble, France)
LHS	Left Hand Side
LIDAR	LIght Detection And Ranging
LKM	Linux Kernel Module
LLJ	Low-level Jet
LLNL	Lawrence Livermore National Laboratory
LMWG	(CCSM) Land Model Working Group
LOSU	Level of Scientific Understanding
LSLZ	Lower Sonoran Life Zone
LSM	Land Surface Model
LTP	Long-Term Probability
LW	Longwave (radiation)
LWC	Liquid Water Content
LWCF	Longwave Cloud Forcing
LWP	Liquid Water Path
MABL	Marine Atmospheric Boundary Layer
MAC	Media Access Control
MAE	Mechanical and Aerospace Engineering
MAR	Mass Accumulation Rate
MARSWIT	Mars Surface Wind Tunnel
MASAIS	Measurement of Albedo and specific Surface Area using an Integrating Sphere
MATRIX	Multiconfiguration Aerosol TRacker of mIXing state
MBD	Metrics Baseline Document (for NASA ACCESS)
MBWA	Mobile Broadband Wireless Access (e.g., IEEE 802.20)
MCD	MODIS Combined Dataset
MCT	Metrics Collection Tool (for NASA ACCESS)
MD	Mineral Dust
MERRA	Modern Era Retrospective-analysis for Research and Applications
MFC	Missing From Collection
MFO	Multi-File Operator
MINATROC	Mineral Dust and Tropospheric Chemistry
MISR	Multi-angle Imaging Spectro-Radiometer (satellite instrument)
MKS	Meter-Kilogram-Second units
MLE	Maximum Likelihood Estimation
MM5	PennState/NCAR Mesoscale Model version 5
MMD	Mass Median Diameter
MMF	Multi-scale Modeling Framework
MMWR	Morbidity and Mortality Weekly Report
MNP	Mojave National Preserve
MODI	Multi-Orifice Deposit Impactor (MODI)
MODIS	Moderate Resolution Imaging Spectroradiometer (satellite instrument)



MOP	Microphysical Optical Properties
MOPIIT	Measurement of Pollution in the Troposphere (satellite instrument)
MOSAIC	MOdel for Simulating Aerosol Interactions and Chemistry
MOUDI	Multi-Orifice Uniform Deposit Impactors (MOUDI)
MOZART	Model for Ozone and Related Tracers
MOZIR	Infrared (radiation) or Infection Rate
MPC	Medium Performance Computing
MPI	Message Passing Interface
MPMD	Multiple Program Multiple Data
MRMVF	Multi-Record Multi-Variable File
FRCG	First Record of Current Group
LRCG	Last Record of Current Group
LDRF	Last Desired Record in File
MRO	Multi-Record Output
MSG	Meteosat Second Generation
MSP	Math Science Partnership
MSc	Marine Stratocumulus
NAA	Neutron Activation Analysis
NACS	Network and Computing Services
NASA	National Aeronautic and Space Administration
NBC	Nuclear, Biological, and Chemical weapons
NC	National Conferences
NCAR	National Center for Atmospheric Research
NCCS	NASA Center for Computational Sciences
NCCS	National Center for Computational Sciences (DOE)
NCDC	National Climatic Data Center
NCEP	National Center for Environmental Prediction
NCEP	National Commission on Energy Policy
NcML	netCDF Markup Language
NCO	netCDF Operators
NCVweb	NetCDF Viewer Web
NDVI	Normalized Difference Vegetation Index
NEMS	DOE National Energy Modeling System
NERSC	National Energy Research Scientific Computing Center
NGS	National Geographic Society
NH	Northern Hemisphere
NH4	NH <sub>4</sub>
NHS	National and Homeland Security
NIC	National Ice Center
NIR	Near Infrared
NMI	NSF Middleware Initiative
NMU	Non-Naintainer Upload
NO2	NO <sub>2</sub>
NOAA	National Oceanic and Atmospheric Administration
NOMADS	NOAA Operational Model Archive and Distribution System

NOPP	National Oceanographic Partnership Program
NPACI	National Partnership for Advanced Computational Infrastructure
NPOESS	National Polar-orbiting Operational Environmental Satellite System
NPS	National Park Service
NRA	NASA Research Announcement
NRDC	National Resources Defense Council
NSA	North Slope of Alaska
NSF	National Science Foundation
NSIDC	National Snow and Ice Data Center
NSS	Non-Sea Salt Sulphate
NSSC	NASA Shared Services Center
NUG	NCO User's Guide
NVODS	National Virtual Ocean Data System
NWS	National Weather Service
O2	O <sub>2</sub>
O2000	Model of SGI shared memory supercomputer at UCI ( <i>krein</i> )
O2N2	O <sub>2</sub> ·N <sub>2</sub>
O2O2	O <sub>2</sub> ·O <sub>2</sub>
O2X	O <sub>2</sub> ·X
O3	O <sub>3</sub>
OAR	Oceanic and Atmospheric Research
OBGC	Ocean Biogeochemistry
OCHO	OCHO
OCI	Office of Cyberinfrastructure (NSF Office)
OEM	Ocean Ecosystem Model
OISE	Office of International Science and Engineering (NSF Division-Level Organization)
OLLI	Osher Lifelong Learning Institute
OLR	Outgoing Longwave Radiation
ONI	Optical Networking Initiative
OPAC	Optical Properties of Aerosols and Clouds
OPC	Optical Particle Counter
OPP	Office of Polar Programs (NSF Office)
OPeNDAP	Open-source Project for a Network Data Access Protocol
ORB	Object Ring Buffer
ORNL	Oak Ridge National Laboratory
OLCF	Oak Ridge Leadership Computing Facility
OSL	Optically Stimulated Luminescence (dating technique)
OpenMP	Standard API for SMPP
OpenACC	Open ACCELERATORS for SMPP
OptIPuter	Optical networking Internet Protocol computer
DAG	Directed Acyclic Graph (history type used by GitHub)
PAPI	Performance Application Programming Interface
PAR	Photosynthetically Active Radiation
PAS	Personal Access System
PCG	Petascale Collaboratory for the Geosciences

PCMDI	Program for Climate Model Development and Intercomparison
PCWG	Polar Climate Working Group
PEBCAK	Problem Exists Between Chair And Keyboard
PGE	Pacific Gas & Electric Company
PI	Principle Investigator
PIO	Parallel I/O
PIR	Personal Interview Report
PM10	Particles finer than 10 $\mu\text{m}$ in diameter
PM2.5	Particles finer than 2.5 $\mu\text{m}$ in diameter
POC	Point of Contact
POLARCAT	POLAR study using Aircraft, Remote sensing, surface measurements and modeling of CL
POP	Parallel Ocean Program
POP+OEM	POP with Ocean Ecosystem Model embedded
PPA	Personal Package Archive
PPA	Plane Parallel Approximation
PRIDE	Puerto Rico Dust Experiment
PSC	Pathscale
PSCTF	Physical Sciences Communications Task Force
PTS	Package Tracking System (Debian)
PVFS	Parallel Virtual File System
PVM	Parallel Virtual Machine
R2D2	Remote Reduction of Distributed Data
RAID	Redundant Array of Independent Disks
RAM	Random Access Memory
RC	Release Critical
RCAST	fxm
RCS	Research Computing Services
RDB	Relational databases
RDG	Rayleigh-Debye-Gans
REE	Rare Earth Element
RFP	Request for Package or Request for Proposals ( <i>syn.</i> FOA), ( <i>syn.</i> AO)
RFS	Request for Sponsor
RGB	Red Green Blue
RH	Relative Humidity
RHS	Right Hand Side
RLI	Regular Latitude Longitude
ROI	Region Of Interest
RPM	RedHat Package Manager
RPS	Renewable Portfolio Standards
RR	Reaction Rates
RRDR	Remote Reduction of Distributed Data
RRT	Rapid Response Team
RSP	(NASA) Radiation Sciences Program
RT	Radiative Transfer
RTM	River Transport Model

SACC	Swiss-American Chamber of Commerce
SAF	Snow Albedo Feedback
SAL	Saharan Air Layer
SAMSON	Solar and Meteorological Surface Observational Network
SAN	Storage Area Network
SAO	Semi-Annual Oscillation
SAR	Second Assessment Report
SAS	surface-atmosphere system
SBE	Social, Behavioral, and Economic Sciences (NSF Directorate)
SC4 = SC <sup>4</sup>	Southern California Climate Change Consortium
SCAQMD	South Coast Air Quality Management District
SCCOOS	Southern California Coastal Ocean Observing System
SCD	Study Center Directorship
SCF	Snow Cover Factor
SCI	Shared Cyberinfrastructure
SDCI	Software Development for Cyberinfrastructure (NSF OCI program)
SDO	Scientific Data Operators
SDS	Scientific Data Set Format
SDSC	San Diego Supercomputer Center
SDSU	San Diego State University
SDSWS	(WMO) Sand and Dust Storm Warning System
SEI	Science and Engineering Informatics or Stockholm Environment Institute
SEIII	Science and Engineering Information Integration and Informatics
SEM	Scanning Electron Microscope
SEVIRI	Spinning Enhanced Visible and InfraRed Imager
SFO	Single-File Operator
SGD	Smart Grid Demonstrations
SGER	Small Grant for Exploratory Research
SGI	Silicon Graphics Incorporated
SH	Southern Hemisphere
SHADE	Saharan Dust Experiment
SI	System Internationale
SIM	Subscriber Identity Module
SL	Southern Levant
SLD	Semi-Lagrangian Dynamics
SLR	Sea Level Rise
SMD	Science Mission Directorate
SMP	Symmetric Multi-Processing, Shared Memory Parallelism
SMPP	Shared Memory Parallel Programming
SMUD	Sacramento Municipal Utilities District
SNICAR	SNow, ICe, and Aerosol Radiative model
SNSF	Swiss National Science Foundation
SO <sub>4</sub>	SO <sub>4</sub>
SOFeX	Southern Ocean Iron Experiment
SOI	Southern Oscillation Index

SOIREE	Southern Ocean Iron Enrichment Experiment
SOM	Supporting Online Material
SP	Senior Personnel or Super-Parameterization
SPEW	Speciated Pollutant Emission Wizard
SPMD	Single Program Multiple Data
SPS	South Pole Station
SPS	UCI School of Physical Sciences
SPV	Solar PhotoVoltaics
SRB	Storage Resource Broker
SRES	Special Report on Emissions Scenarios
SRM	Solar Radiation Management
SS	Saltation-Sandblasting
SSA	Specific Surface Area
SSDRA	Server-Side Data Reduction & Analysis
SSI	UCI Summer Science Institute
SSP	Summer Science Program
SSS	Sea Salt Sulphate
SST	Sea Surface Temperature
STP	Standard Temperature and Pressure
SUCCESS	Subsonic Aircraft: Contrail and Cloud Effects Special Study
SW	Shortwave (radiation) or Southwest or Summer Workshops
SWAMP	Script Workflow Analysis for MultiProcessing
SWCF	Shortwave Cloud Forcing
SWE	Snow Water Equivalent
SciDAC	Scientific Discovery through Advanced Computing
TAR	Third Assessment Report
TB	Terabyte
TC	Tropical Cyclone
TEOM	Tapered Element Oscillating Microbalance
TG	Temperature Gradient
TH	Thermostat Hypothesis
TIPA	The International Phonetic Alphabet
TL	Thermoluminescence (dating technique)
TNA	Tropical North Atlantic
TNEF	Transport-Neutral Encapsulation Format ( <code>winmail.dat</code> )
TOA	Top of Atmosphere
TOMS	Total Ozone Mapping Spectrometer (satellite instrument)
TRL	Technology Readiness Level
UAB	Universitat Autònoma de Barcelona (Autonomous University of Barcelona)
UARP	(NASA) Upper Atmosphere Research Program
UB	Universitat Barcelona (University of Barcelona)
UCAR	University Corporation for Atmospheric Research
UCEAP	University of California Education Abroad Program
UCI	University of California, Irvine
UDF	Universal Disk Format

UNCCD	United Nations Convention to Combat Desertification
UNIX	Generic name for operating system
UOEAP	Universitywide Office of the University of California Education Abroad Program
UPC	Universitat Politècnica de Catalunya (Polytechnical University of Barcelona)
UPMC	Université P. et M. Curie
URI	University of Rhode Island
UV	User Visits to LEP
VC	Visualization Cluster
VCR	Vice Chancellor for Research
VR	Virtual Reality
WAIS	West Antarctic Ice Sheet
WCGGI	West Coast Governors' Global Warming Initiative
WCRP	World Climate Research Programme
WG	Working Group
WG1	(IPCC) Working Group One (Scientific Basis of Climate Change)
WKB	Wentzel-Kramers-Brillouin (theory)
WLAN	Wireless Local Area Network (e.g., IEEE 802.11, WiFi)
WMAN	Wireless Metropolitan Area Network (e.g., IEEE 802.16, WiMAX)
WMD	Weapons of Mass Destructiona
WNPP	Work-Needing and Prospective Packages
WPAN	Wireless Personal Area Network (e.g., IEEE 802.15, Bluetooth)
WPWP	Western Pacific Warm Pool
WRF	Weather Research and Forecasting (model)
WSTNA	Western and Subtropical North Atlantic
WWAN	Wireless Wide Area Network (e.g., IEEE 802.16, WiMAX)
WiMAX	Worldwide Inter-operability for Microwave Access (IEEE 802.16)
XML	Extensible Markup Language
YD	Younger-Dryas
YKW	You Know Who
ZKB	Zero known bugs
netCDF	network Common Data Format
p655	8-CPU IBM computer node in ESMF
p690	32-CPU IBM computer node in ESMF
ALMOD	average layer monochromatic optical depth
ALT	average layer transmission
CEWI	Compiler Error Warning Initializer
HG	Henye-Greenstein
IT	Interface Transmission
IT	Interface transmission
ITOD	Interface Transmission Optical Depth
LMOD	Layer Monochromatic Optical Depth
LMT	Layer Monochromatic Transmission
LT	Layer Transmission

LTOD	Layer Transmission Optical Depth
RUVICFFU	Retain Unused Variables In Comments For Future Use
Ray	Rayleigh
SS	Sensitivity Study
aa	azimuthal average
aapt	Android Asset Packaging Tool
abb	abbreviation
abs	absorption, absorbed, absorbing
aca	anomalous cloud absorption
acc	annual cycle
acm	accommodation or accomplishment
act	activity
acu	altocumulus
adb	adding-doubling (radiative transfer method) or Android Debugging Bridge
adp	adaptation ( <i>ant. mtg</i> )
aer	aerosol, aerosol-laden (turbid) ( <i>ant. cln</i> ), or aerodynamic
afr	afforestation
agr	agricultural
alb	albedo
all	all, every, entire
alp	associated Legendre polynomial
alw	adiabatic liquid water or allow
amp	ampersand
amt	amount
anl	analyzed or analytic ( <i>ant. rsl</i> )
anm	animation or anomaly or anonymous
apk	Android application
apm	applied math
apn	append ( <i>ant. ppn</i> ) or appendix
apr	annual progress report or approve, approved or aperture
apt	appointment
arf	aerosol radiative forcing
ash	apparent sink heat
asm	asymmetry (as in asymmetry parameter) or asymptote
asp	aspherical ( <i>ant. sph</i> )
atm	atmosphere or atmospheric
att	attribute
avg	average, mean
axz	axis, axes
azi	azimuth, azimuthal
bb	broadband
bbc	broad branch crystal ( <i>ant. hxg</i> )
bbd	black body
bb1	bubble
bch	batch or beach

bck	backscatter ( <i>ant. fwd</i> ) or backup
bcl	baroclinic ( <i>ant. brt</i> )
bdy	birthday
bfr	buffer
bgf	bigfile
bio	biological
bkf	backfill
blk	block or black
bll	bell
bln	boolean
blr	bluer (shorter wavelength) ( <i>ant. rdr</i> )
bm	beam or benchmark
bmb	biomass burning
bnd	band or bounded, boundary
bnr	binary
bool	Boolean
bp	pointer to byte
bpv	bits per packed value
brd	broadened, broadening
brn	Brownian or barn
brt	brightness (temperature) or barotropic ( <i>ant. bcl</i> )
bsc	backscatter
bsl	Bessel
btm	bottom, lowermost ( <i>ant. top</i> )
bvr	bi-variate ( <i>ant. uvr</i> )
bw	black and white
bwn	Bowen (ratio)
bxm	box model
cbc	cubic
ccd	coccidioidomycosis
cch	cache
ccn	cloud condensation nuclei
cdnc	cloud droplet number concentration
cff	coefficient
cfg	configure
chk	check or checksum
chm	chemistry
chn	channel
chn	chapter
cht	cheatsheet
ck	cook, cooking
ck	correlated- <i>k</i>
ckn	cooking
clb	Coulomb
clc	collection



cld cloud, cloudy or all sky (*ant. clr*)  
 cll collision or cell or collimated  
 clm column or climate  
 cln clean (aerosol-free) (*ant. aer*) or clean (memory) (*ant. drt*) or calendar  
 clq colloquium  
 clr color or clear (cloud-free) (*ant. cld*)  
 cls Celsius (*ant. klv*) or class or close (*ant. opn*) or classical (*ant. qnt*)  
 cly clay  
 cmd command  
 cml cumulative  
 cmm communicator  
 cmn common  
 cmp compare or compress, compressed, compression  
   cn condensation nuclei  
 cnc concentration or conclusion  
 cnd condensate, condensed or conductivity, conductance  
 cnf conform  
 cnk chunk  
 cnm continuum (*ant. ln*) or economic, economical  
 cnn canonical  
 cnp canopy  
 cns consulate  
 cnsc consecutive  
 cnt count or continuum or controversy  
 cnv convergence or convert or convention  
 cor core (*ant. mnt*)  
 cos cosine  
   cp copy or pointer to char  
 cpc capacity  
 cpl capillary  
 cpt caption  
 cpv computational precision variable  
 cpx complex  
 crc correction or circumference or circle  
 crd coordinate  
 crl curl (*ant. dvr*) or coral  
 crp creep (surface) or cryptography  
 crr current  
 crs Cirrus or course (*ant. hrz*) or cross (*ant. dot*)  
 crs crust, crustal  
 crt Cartesian (*ant. sph*) or critical (*syn. thr*) or create  
 csn seasonal  
 cst cast or constant or constituent or coast, coastal  
 csza cosine solar zenith angle  
 ctg category or contiguous

<code>ctl</code>	control ( <i>ant. xpt</i> )
<code>ctr</code>	center, central or counter
<code>cv</code>	curriculum vitae
<code>cvr</code>	centennial variability
<code>cw</code>	carbon and water
<code>cyl</code>	cylinder ( <i>ant. sph</i> )
<code>dat</code>	data
<code>day</code>	night ( <i>ant. ngh</i> )
<code>dbg</code>	debug
<code>dbl</code>	double ( <i>ant. flt</i> )
<code>dbn</code>	debian
<code>dcc</code>	diurnal cycle
<code>dcr</code>	decreasing or decrement
<code>dcx</code>	double_complex
<code>dd</code>	day of month (two digit format) ( <i>syn. dom</i> )
<code>ddd</code>	day of year (three digit format) ( <i>syn. doy</i> )
<code>ddm</code>	direct-diffuse mean
<code>ddp</code>	dry deposition
<code>dep</code>	depth, as in optical depth
<code>dex</code>	Dalvik executable
<code>dff</code>	diffuse (radiation) ( <i>ant. drc</i> ) or diffusion, diffusivity (deprecated)
<code>df1</code>	default or deflate, deflated ( <i>ant. nf1</i> )
<code>dfn</code>	definite or define, definition
<code>dfr</code>	deforestation
<code>dfr</code>	differential or defer, deferred
<code>dfs</code>	diffuse (radiation) or diffusion, diffusivity (preferred)
<code>dgn</code>	diagnostic or diagonal
<code>dgr</code>	degrees ( <i>ant. rdn</i> )
<code>dgs</code>	digest
<code>dgt</code>	digit
<code>dle</code>	delta-Eddington (radiative transfer method)
<code>dlq</code>	deliquescence
<code>dlr</code>	dollar
<code>dlt</code>	delta, difference
<code>dmd</code>	diamond dust
<code>dmg</code>	Disk Image (MacIntosh filetype)
<code>dmm</code>	deci-millimeter ( $\text{m}^{-4}$ ) or dim, dimming
<code>dmm</code>	dimension
<code>dmr</code>	dimer
<code>dmt</code>	diameter ( <i>ant. rds</i> )
<code>dmy</code>	dummy
<code>dnd</code>	do not delete or dendrite, dendritic
<code>dne</code>	does not exist
<code>dn1</code>	delete whitespace up to new line (M4 comment)
<code>dnm</code>	denominator ( <i>ant. nmr</i> )

dns density  
dom day of month (*syn.* dd)  
dot dot product (*ant.* crs)  
doy day of year (*syn.* ddd)  
dp pointer to double  
dpl dipole or duplicate  
dpp Doppler  
dps deposition  
dpt depth  
drc direct (*ant.* dff) or direction  
drg drag  
drk dark (*ant.* lgt)  
drn duration  
drs address  
drt dirty (memory) (*ant.* cln)  
drv driver or derived, derivation or derivative  
drw Darwin  
dsc description or discussion or discriminant or discretization  
dsd drop size distribution (*ant.* psd)  
dsh dash  
dsk disk  
dsr desert  
dsr discrete-ordinates (radiative transfer method)  
dss disease  
dst distribution or distance or dust  
dte detector  
dvc device  
dvd divide (*ant.* mlt)  
dvn deviation  
dvr decadal variability or divergence (*ant.* crl)  
dwn down, downwelling (*ant.* up)  
dwp dew point  
dwt dry weight  
dyn dynamic  
edc education  
eid emerging infectious diseases  
emu emulate  
enm enumerated  
epd epidemiology  
eps epsilon or Encapsulated PostScript  
eqm equilibrium  
eqn equation  
eqx equinox (*ant.* sls)  
err error  
est East (*ant.* wst)

evl evaluate  
 evn even (symmetric) (*ant. odd*)  
 ext extinction  
 fch fetch  
 fct factor  
 fcx float\_complex  
 ffc effective  
 fgr figure  
 fk fake  
 fl file or firstnamelastname (no space)  
 flc fluctuating, fluctuation  
 fld field or fluid  
 flg flag  
 flk flake  
 fll fill or full or Fall  
 fls false (*ant. tru*)  
 flt filter or float (*ant. dbl*) (*ant. int*)  
 flw flow or follow or fellowship or follow-up  
 flx flux (*syn. rrd*)  
 fml family  
 fn first name (*ant. ln*)  
 fnc function  
 fnl final  
 fnt font  
 fp pointer to float  
 frc fraction or forcing or friction  
 frd Froude or Faraday  
 frl fractal  
 frm formula  
 frn foreign (broadened) (*ant. slf*)  
 frnd friend  
 frq frequency (*ant. wvn*) (*ant. wvl*) (*ant. prd*)  
 frr Fourier  
 frs Fresnel or first (*ant. lst*)  
 frs forest  
 fsh efficiency or offshore (*ant. nsh*)  
 fsn fusion  
 fst offset  
 ftr future  
 fwd forward (*ant. rvr*) or forward scatter (*ant. bck*)  
 fxm fix me (debugging)  
 fzz fuzzy (band averaged)  
 gaa global annual average  
 gam global annual mean  
 gcc global climate change

gdp gravitational deposition  
gds geodesic  
gdwt gram dry weight  
gft gift  
glb global or greatest lower bound  
glc glacier, glacial, glaciogenic  
gml Gmail address  
gmm gamma  
gmr geomorphology, geomorphic  
gmt Greenwich Mean Time or geometric  
gnd ground or agenda  
gng geo-engineering  
gnm genome, genomic  
gnr generic or generator  
goa geometric optics approximation  
gpd gas phase diffusion  
grd grid or gradient (*ant. crl*)  
grp group  
grv gravity, gravitation  
grw grow, growth  
gry grey  
gsd geometric standard deviation  
gss Gauss, Gaussian  
gw Gaussian weight  
gwc gravimetric water content  
hch heterogeneous chemistry  
hdl headline  
hdr header  
heat heating  
heg HDF EOS Grid  
hgh high (*ant. low*)  
hgt height (*ant. wdt*)  
hh hour of day (two digit format) (*syn. hr*)  
hi high, uppermost (*ant. lo*)  
hlc holocene  
hmr humor  
hmd humidity  
hmg homogeneous (*ant. nhm*)  
hms hemisphere  
hnd handle  
hnr Henry or honor, honors  
hr hour  
hrd surface hoar  
hrs depth hoar  
hrv Harvard

hrz	horizontal ( <i>ant.</i> vrt) or high-resolution
hst	history
htrn	HITRAN
hxd	hexadecimal
hxg	hexagon, hexagonal ( <i>ant.</i> bbc)
hyd	hydrology
i18n	internationalization
iaf	ice albedo feedback
icc	interannual cycle or ice core
icr	ice core
id	identifier
idx	index or indices
iff	if and only if
ilg	illegal ( <i>ant.</i> lgl)
img	imaginary or image
in	input ( <i>ant.</i> out)
ini	initial, initialize
inq	inquire
int	integer ( <i>ant.</i> flt)
ipc	interparticle cohesion
ipm	isopotomer
ips	idiom and practice of science
ipt	isopotomer
iso	isotope or isothermal
ist	interstitial
itp	isotope
itr	iterator or iteration
ivr	interannual variability
jc	journal club
jrn	journal
kdz	kids
klv	Kelvin ( <i>ant.</i> cls)
kml	Keyhole Markup Language ( <i>syn.</i> kmz)
kmz	zipped (compressed) Keyhole Markup Language file ( <i>syn.</i> kml)
knd	Knudson
knm	kinematic
knt	kinetic
kyt	kite
l10n	localization
lac	light absorbing carbon
lai	leaf area index ( <i>ant.</i> vai, sai)
lak	lake
lat	latitude ( <i>ant.</i> lon)
lbl	label or line-by-line
lbr	library

lcl local  
 lcn location  
 ldr lidar  
 lev level  
 lfc lifecycle  
 lft lift or left (*ant. rgt*) or lifetime  
 lgf logfile  
 lgl legal (*ant. ilg*)  
 lgn lognormal or legend  
 lgt light (*ant. drk*) or lightning  
 liq liquid  
 lkt look-up table  
 llm illumination  
 lmn element or laminar  
   ln line or natural logarithm or last name (surname) (*ant. fn*)  
 lnd land (*ant. ocn*)  
 lng long or length or language  
 lnr linear (*ant. nlr*)  
 lnt lenticular  
   lo low, lowermost (*ant. hi*)  
 loi letter of intent  
 lon longitude (*ant. lat*)  
 los letter of support  
 low low (*ant. hgh*)  
   lp pointer to long  
 lpl Laplace, Laplacian  
 lqd liquid (*ant. sld*)  
 lrb larboard (*syn. prt*) (*ant. srb*)  
 lrb larboard (*syn. prt*) (*ant. srb*)  
 lrn Lorentz, Lorentzian  
 lrv least rapidly varying  
 lsc last significant character  
 lsf line shape factor  
 lss loess  
 lst list or last (*ant. frs*)  
 ltn latent (heat) (*ant. sns*) or latency  
 ltr letter or liter  
 lub least upper bound  
 lut lookup table  
 lvl level  
 m17n multilingualization  
 max maximum (*ant. min*)  
 mbl mobilization  
 mca multi-component aerosol  
 mcr micron

md	mode
mdl	modal ( <i>ant. sxn</i> ) or model ( <i>ant. obs</i> ), ( <i>ant. msr</i> )
mdm	medium ( <i>ant. prt</i> ), ( <i>ant. core</i> ), ( <i>ant. ncl</i> )
mdn	median
mdp	midpoint ( <i>ant. ntf</i> )
mds	modulus
mfp	mean free path
mgn	magnetism, magnetic
mie	Mie
min	minimum ( <i>ant. max</i> )
mjr	major
mk	make, create
mlc	molecule, molecular
mlg	mileage
mlk	Malkmus or Milankovitch
mll	molality ( $\text{mol kg}^{-1}$ )
mlmic	mean linear mass increase coefficient
mlr	molarity ( $\text{mol L}^{-1}$ )
mlr	molarity ( $\text{mol L}^{-1}$ )
mls	mid-latitude summer or mean line spacing
mlt	multiply ( <i>ant. dvd</i> ) or multiple ( <i>ant. sgl</i> )
mlw	mid-latitude winter
mm	month of year or minute of hour (two digit format) ( <i>syn. moy, mth</i> )
mmn	moment or momentum
mmr	mass mixing ratio or memory
mmt	mammatus
mmw	mean molecular weight
mnz	immunization
mnc	Monte Carlo
mng	monograph
mnm	minimum ( <i>ant. mxm</i> )
mno	Monin-Obukhov
mnr	minor or mineral, mineralogy
mnt	monotonic or minute or mantissa or mantle ( <i>ant. cor</i> )
mod	modulus
mom	moment (e.g., in Legendre expansion)
mono	monochromatic
moy	month of year ( <i>syn. moy</i> )
mpc	mass path column or impaction
mpl	implementation or mass path layer
mpr	empirical
mrđ	(mass) mixing ratio in dry air ( <i>ant. mrm</i> )
mrk	Markov or mark
mrm	(mass) mixing ratio in moist air ( <i>ant. mrđ</i> )
mrr	mirror



**mrv** most rapidly varying  
**mrz** Mars, Martian  
**msc** miscellaneous or music  
**msg** message  
**msk** mask  
**msl** mean sea level  
**msn** emission  
**msr** measured, measurement (*ant.* mdl), (*syn.* obs)  
**mss** mass or missing (value)  
**mst** moisture, moist (air) (*ant.* dry)  
**msv** emissivity  
**mtd** metadata or method  
**mtg** meeting or mitigation (*ant.* adp)  
**mth** month (*syn.* moy, mm) or math  
**mtm** metamorphism  
**mtr** meter or metric  
**mtx** matrix (*ant.* ncl)  
**mvs** Microsoft Visual Studio  
**mvsc** Microsoft Visual Studio Compiler  
**mwb** Maxwell-Boltzmann  
**mxg** Maxwell Garnett (*ant.* brg)  
**mxm** maximum (*ant.* mmm)  
**naa** number average analytic  
**nar** number average resolved  
**nb** narrow band  
**nbr** number  
**nc** netCDF  
**ncl** nucleation or nucleus, nuclei, nuclear or inclusion (*syn.* core), (*syn.* prt), (*ant.* mtx) or inclu  
**ncr** increasing or increment or encrypted (*ant.* ucr) or anchor  
**ncv** natural climate variability  
**ncw** nuclear winter  
**ndc** normalized device coordinates  
**ndf** indefinite  
**ndn** indent, indentation or endianness  
**ndf** indefinite  
**ndm** non-dimensional or endemic  
**ndr** indirect effect or nadir, downward looking (*ant.* zen)  
**nfc** infection  
**nfl** inflate (*ant.* dfl)  
**nfn** infinite  
**nfr** info., information  
**ngh** night (*ant.* day) or neighbor  
**ngs** Ångström  
**nhm** inhomogeneous (*ant.* hmg)

<b>nlr</b>	non-linear ( <i>ant. lnr</i> )
<b>nm</b>	name
<b>nma</b>	number median analytic
<b>nmn</b>	nominal or non-monotonic
<b>nmr</b>	number median resolved or numeric or numerator ( <i>ant. dnm</i> )
<b>nms</b>	namespace
<b>npc</b>	number path column
<b>npl</b>	number path level
<b>nrg</b>	energy or inorganic ( <i>ant. rgn</i> )
<b>nrs</b>	inertia
<b>nrs</b>	nurse, nursing
<b>nrt</b>	North ( <i>ant. sth</i> )
<b>nsh</b>	onshore ( <i>ant. fsh</i> )
<b>nsi</b>	insolation
<b>nsm</b>	ensemble
<b>nsr</b>	answer
<b>nst</b>	instrument or instantiate, instantiation or instructor, instruction
<b>nsz</b>	Nussenzweig
<b>ntc</b>	interception or notice
<b>ntf</b>	interface ( <i>ant. mdp</i> )
<b>ntg</b>	integral or integer
<b>nth</b>	enthalpy
<b>ntl</b>	initial or initials
<b>tmc</b>	atomic ( <i>ant. ntm</i> )
<b>ntm</b>	intermediate or non-atomic ( <i>ant. tmc</i> )
<b>ntn</b>	intensity or radiance
<b>ntp</b>	interpolate, interpolant or entropy
<b>ntr</b>	introduction ( <i>ant. cnc</i> ) or internal ( <i>ant. xtr</i> ) or nutrient or entertainment
<b>nts</b>	note to self
<b>ntt</b>	annotate, annotated, notation
<b>ntv</b>	interval, interview
<b>ntw</b>	network
<b>ntz</b>	units
<b>nvr</b>	environment ( <i>ant. prc</i> ) or inversion or never
<b>nvt</b>	invitation
<b>nwa</b>	number weighted average analytic
<b>nwr</b>	number weighted average resolved
<b>nwt</b>	Newton ( <i>syn. rph</i> ), Newtonian
<b>nxt</b>	next ( <i>ant. prv</i> ) or ( <i>ant. crr</i> )
<b>obl</b>	oblate ( <i>ant. prl</i> )
<b>obs</b>	observed, observation ( <i>ant. mdl</i> ), ( <i>syn. msr</i> )
<b>ocn</b>	ocean ( <i>ant. lnd</i> )
<b>oda</b> [c,l]	optical depth absorption [column,layer]
<b>odd</b>	odd (anti-symmetric) ( <i>ant. evn</i> )
<b>ods</b> [c,l]	optical depth scattering [column,layer]

odx extinction optical depth  
 odx[c,l] optical depth extinction [column,layer]  
 off offsest  
 omp OpenMP  
 op operation  
 opn open (*ant. cls*)  
 opt optical or option or optimal  
 osm osmotic  
 osw offshore wind  
 out output (*ant. in*)  
 ovl overlay  
 ovr overlap  
 pbl public (*ant. prv*) or planetary boundary layer  
 pcc polar climate change  
 pch photochemistry (*ant. hch*) or pch  
 pck pack, packed (*ant. upk*)  
 pcl Peclet or parcel (*ant. nvr*)  
 pcp precipitation  
 pct percent  
 pd present day  
 pdd photodiode  
 pfl profile  
 pfo pseudo-first order  
 pforc pseudo-first order rate coefficient  
 pfx prefix  
 pht photon  
 phy phytolith  
 phz phase  
 plc place or policy or paleoclimate  
 plg polygon  
 plk Planck  
 pll palette or pollution  
 pln plant or plain (*syn. ucr*) or planar (*ant. sld*)  
 plp plane parallel  
 plr polar, as in polar angle (*ant. azi*)  
 plt plot  
 plt politics, political  
 pmr partial molar refraction (optical approximation)  
 pmp pre-empt, pre-emption  
 pnl panel  
 pnr panorama  
 pnt point  
 ppl population or popular (*ant. prv*)  
 ppn prepend (*ant. apn*)  
 ppp pre-proposal

ppr	partial pressure or paper
prc	process or photodissociation rate coefficient or precision
prd	period ( <i>ant.</i> frq) or product
prg	program
prj	projection
prl	parallel ( <i>ant.</i> prp) or prolate ( <i>ant.</i> obl) or parliamentarian
prm	parameter or prime or permafrost
prn	print, printer or parentheses, parenthetical, or period or parent
prp	property or perpindicular ( <i>ant.</i> prl) or proposal or propre (clean) ( <i>ant.</i> sal)
prs	pressure or parse or person or press
prt	partial or partition or port ( <i>syn.</i> lbr) ( <i>ant.</i> sbr)
prv	peer-reviewed ( <i>ant.</i> ppl) or preserve, preserving
prv	private ( <i>ant.</i> pbl) or previous or provisional
prx	approximation
psd	particle size distribution ( <i>ant.</i> dsd) ( <i>syn.</i> szdst) or pseudonym
psd	postdoc
psn	position
pss	Poisson or parent snow sample
pst	positive or poster or pesticide
pth	path
ptn	potential
ptr	pointer or poetry
pwr	power
pyr	pyrocumulus
qck	QuikSCAT
qdr	quadratic or quadruple
qnt	quantum ( <i>ant.</i> cls)
qrk	quark
qst	saturated mixing ratio
rat	rate
rbn	rebin
rbr	rebase
rbr	rebuttal
rcd	return code
rch	research
rcm	recompute
rcp	reciprocal
rcr	recurrence ( <i>ant.</i> nrgr) or recursive
rct	rectangle, rectangular ( <i>ant.</i> rrg)
rdb	erodible, erodibility
rdc	reduced or radioactivity
rdd	retain degenerate dimensions
rdl	radial
rdn	radian ( <i>ant.</i> dgr) or radiation
rdr	order ( <i>ant.</i> rrd) or redder (longer wavelength) ( <i>ant.</i> blr)

rds radius (*ant. dmt*)  
 rec record  
 rf reef  
 rfl reflectance  
 rfr refraction or reference or refresh  
 rgd rigid  
 rgh roughness  
 rgl regular  
 rgn region or original, origin or organic (*ant. nrg*)  
 rgr regression or regrid  
 rgt right (*ant. lft*)  
 rhd relative humidity at deliquescence  
 rjc reject, rejected  
 rl real  
 rlh roughness length heat  
 rlm roughness length momentum  
 rlt relative  
 rlv roughness length water vapor  
 rma resonance of maximum amplitude  
 rmn remaining or Riemann  
 rmt remote  
 rnb rainbow  
 rnd raindrop  
 rng range  
 rnk rank  
 rnr renormalize  
 rnt orientation  
 rph Raphson (*syn. nwt*)  
 rpk repack  
 rpl replicate, replicant  
 rpr reprint or repair  
 rpt report  
 rqr require  
 rqs request  
 rrd irradiation, irradiance (*syn. flx*), (*ant. ntn*) or re-order (*ant. rdr*)  
 rrg irregular (*ant. rct*)  
 rsd residue or residual  
 rsl resolved (*ant. anl*) or result  
 rsn resolution  
 rsr resource  
 rss resistance  
 rst reset  
 rtc article  
 rte route  
 rth arithmetic or orthogonal, orthonormal

rtl	run-time linking
rtp	ready-to-post
rtr	retrieval or router
rts	ready-to-send
rtt	rotated, rotation, rotational, rotator
rvr	reverse ( <i>ant. fwd</i> ) or river, riverine
rvw	review
rx	regular expression
rxn	reaction
rxr	reaction rate
rxrc	reaction rate coefficient
ryl	Rayleigh
ryn	Reynolds
ryt	ray-tracing
rzh	erosion
saa	surface area average analytic
sai	stem area index ( <i>ant. vai, lai</i> )
sal	sal (dirty) ( <i>ant. prp</i> )
sar	surface area average resolved
sas	sub-Arctic summer or surface-atmosphere system
saw	sub-Arctic winter
sbf	Spherical bessel function
sbl	sublimation
sbr	subroutine
sbs	subscript ( <i>ant. sps</i> )
sbt	subtract ( <i>ant. add</i> )
sca	scattering ( <i>ant. abs</i> )
scc	seasonal cycle
scd	schedule
scf	snow cover fraction
sch	search
scl	scale or school
scn	second or scan
scr	security or secret
sct	scatter, scattering, scatterometer, or structure
scv	scalar value or scavenge, scavenging
sd	side
sdm	sediment
sdn	student
sdv	standard deviation
seb	surface energy budget
sec	second
sfc	surface
sft	software
sfx	suffix

sgl single (*ant. mlt*)  
 ebk e-book  
 sgn sign or assignment or significant  
 nsg unsigned  
 sgs sub-gridscale  
 shf shuffle  
 shm Schmidt  
 shp shape or ship  
 shr Sherwood  
 sht short  
 sin sine  
 skip skip (*ant. usd*)  
 sl soil  
 slb slab or solubility  
 slc slice  
 sld solid (*ant. pln*) (*ant. lqd*)  
 slf self (broadened) (*ant. frn*)  
 sln solution  
 slp slip  
 slr solar  
 sls solstice (*ant. eqx*) or slash  
 slt solute (*ant. slv*) or silt or saltation, saltator  
 slv solvent (*ant. slt*) or solve, solver  
 sma surface area median analytic  
 sml similarity  
 smm summation  
 smp soil matric potential or sample or simple or symmetric multi-processing  
 smr Summer or surface area median resolved or summary  
 snd sonde or sand  
 sng string  
 snp snap or snowpack  
 sns sensitivity or sensible (heat) or sunset  
 snw snow  
 sov separation of variables  
 sp pointer to **short**  
 spc special or spectral (*ant. bb*) or specific or spectroscopy or space  
 spf superfluous or spitfire  
 sph sphere, spherical (*ant. cyl*) (*ant. asp*)  
 spl supplement  
 spm summary for policymakers (*ant. tsm*)  
 spn span  
 spr Spring or sparse or super  
 sps superscript (*ant. sbs*)  
 sqr square, squared  
 srb starboard (*ant. prt*) (*ant. lrb*)

<b>src</b>	source or structure
<b>srd</b>	stride
<b>srf</b>	surface reflectance feedback
<b>srg</b>	storage
<b>srl</b>	spiral
<b>srm</b>	stream
<b>srs</b>	series
<b>srt</b>	start or sort
<b>srv</b>	service or server
<b>ss</b>	single scattering or sensitivity study or second of minute (two digit format)
<b>ssh</b>	secret
<b>ssl</b>	sea-salt
<b>stb</b>	stable or stability
<b>stc</b>	sticking (coalescence)
<b>std</b>	standard
<b>stg</b>	stagger
<b>sth</b>	South ( <i>ant. nrt</i> )
<b>stk</b>	Stokes or stack
<b>stl</b>	satellite
<b>stm</b>	stimulated
<b>stmt</b>	statement
<b>stp</b>	step
<b>str</b>	star or strength or stress
<b>stt</b>	status, state or statement or students' t-test
<b>stx</b>	stratosphere-troposphere exchange
<b>sty</b>	style
<b>sv</b>	save
<b>svd</b>	saturation vapor density
<b>svm</b>	saturation vapor mixing ratio
<b>svn</b>	subversion
<b>svp</b>	saturation vapor pressure
<b>svr</b>	seasonal variability
<b>svy</b>	survey
<b>sw</b>	software
<b>swa</b>	surface area weighted average analytic
<b>swg</b>	software engineering
<b>swr</b>	surface area weighted average resolved
<b>sxn</b>	section or sectional ( <i>ant. modal</i> )
<b>sys</b>	system
<b>sz</b>	size
<b>sza</b>	solar zenith angle
<b>szdst</b>	size distribution
<b>tbl</b>	table
<b>tca</b>	tropical cirrus anvil
<b>tch</b>	teacher



tck tick  
 tdl tidal  
 tdp turbulent deposition  
 thk thick, thickness  
 thr threshold or therapy  
 thw thaw  
 tlk talk  
 tln outline  
   tm time  
 tmp temporary  
 tmr timer  
 tms TOMS or timeseries  
 tmw teamwork  
 tnd tendency  
 tnr tenure  
 tns tensor  
 tnt tentative  
 top top, uppermost (*ant.* btm)  
 tpg topography, topographic  
 tpt temperature  
 smf ESMF  
 tps Tempest (remapping suite)  
 trb turbulent, turbulence  
 trc tracer  
 trg trace gas or target or trigger  
 trm thermal or term or termination  
 trn transmittance, transmission or transformation or trend or translation, translational (energy)  
 trp tropics, tropical or triplet  
 tru true (*ant.* fls)  
 trv traverse  
 tsm technical summary (*ant.* spm)  
 tst test  
 ttl total or title  
 txt text or texture (soil)  
 typ type  
 ucr un-encrypted (plain text) (*ant.* ncr)  
   um micron, micrometer  
 unk unknown  
 nsx intersection (*ant.* unn)  
 unn union (*ant.* nsx)  
   up upward, upwelling (*ant.* dwn)  
 upk unpack, unpacked (*ant.* pck)  
 upt uptake  
 upw upward, upwelling (*ant.* dwn)  
 usd used (*ant.* skp)

usg	usage
usr	user
uvr	uni-variate ( <i>ant.</i> bvr)
vaa	volume average analytic
vai	vegetation area index (leaf + stem) ( <i>ant.</i> lai,sai)
val	value
var	variability or variable or volume average resolved
vbr	vibration
vct	vector
vec	vector
vf	Valley Fever
vgt	vegetation or Voigt
vlc	volcano, volcanic
vld	valid, model validation dataset
vlm	volume
vlw	volume-weighted
vma	volume median analytic
vmr	volume median resolved
vnt	event or ventilation
vp	pointer to void
vpr	vapor
vrb	verbose
ncs	ancestor
vrn	variance
vrs	version or various
vrt	vertical ( <i>ant.</i> hrz) or vortex, vortice or vertice
vs	Visual Studio
vsb	visible
vsc	viscous, viscosity
vsh	vector spherical harmonic
vta	volume-to-area
vwa	volume weighted average analytic
vwc	volumetric water content
vwr	volume weighted average resolved
vzn	visualization
wbl	Weibull
wbn	wind bin
wdp	wet deposition
wdt	width ( <i>ant.</i> hgt)
wdw	window
wgt	weight, weighted
wht	white
winoc	water insoluble organic carbon ( <i>ant.</i> wsoc)
wk	weak or week
wnd	wind or Windows

wnt Winter  
 wrd award  
 wrk work  
 wrp wrap  
 wsoc water soluble organic carbon (*ant. winoc*)  
 wst West (*ant. est*)  
   wt wait  
 wth weather  
 wtl wetland  
 wtm mass-weighted  
 wtn number-weighted  
 wtr water  
 wts surface area-weighted or spectrally weighted  
 wtv volume-weighted  
 wtx cross sectional area-weighted  
   wv wave  
 wvl wavelength (*ant. wvn*)  
 wvn wavenumber (*ant. wv1*)  
 xaa cross-sectional area average analytic  
 xab extended abstract  
 xar cross-sectional area average resolved  
 xbt exhibit  
 xcf eXperimental Computing Facility (*gimp* file format)  
 xcl exclude (*ant. ncl*)  
 xcs excess  
 xct Executable  
 xct excited (state)  
 xem extended effective medium  
 xma cross-sectional area median analytic  
 xmp example  
 xmr cross-sectional area median resolved  
 xnt eccentricity (orbital)  
 xpc expected  
 xpn exponent, exponential or expand, expanded (*ant. pck*)  
 xpr expression or expire  
 xpt experiment (*ant. ct1*)  
 xrf cross reference  
 xsa cross-sectional area  
 xst exist, exists  
 xsx cross-section, cross-sectional (area)  
 xtn extend, extended  
 xtr extrapolate (*ant. ntp*) or extract or external (*ant. ntr*)  
 xwa cross-sectional area-weighted average analytic  
 xwr cross-sectional area-weighted average resolved  
 yld yield

<b>yr</b>	year ( <i>syn.</i> <b>yyyy</b> )
<b>yyyy</b>	year (four digit format) ( <i>syn.</i> <b>yr</b> )
<b>zen</b>	zenith, upward-looking ( <i>ant.</i> <b>ndr</b> )
<b>zpd</b>	zero plane displacement
<b>zro</b>	zero
<b>zta</b>	zeta