

ACRONYMS AND ABBREVIATIONS

A	Ampere	CXDI	coherent x-ray diffractive imaging
Å	Angstrom	CXS	coherent x-ray scattering
ADC	analog to digital converter	DA	dynamic aperture
ADT	array display tool	DAC	digital to analog converter
AFM	atomic force microscope, also called SFM	DART	Days Away, Restricted, Transfer
ALS	Advance Light Source	DB	database, dry bulb
ANL	Argonne National Laboratory	DBD	database definition
ANSI	American National Standards Institute	DBA	double bend achromatic
APD	avalanche photodiode	DCCT	Direct Current Current Transformer
APPLE	Advanced Planar Polarized Light Emitter	DCM	double-crystal monochromator
APPS	Accelerator Personnel Protection System	DCT	database configuration tool
APS	Advanced Photon Source	DDS	direct digital synthesizer
ARPES	angle-resolved photoemission system	DEI	diffraction enhanced imaging
ASHRAE	Am. Soc. Heating, Refrig. & Air Cond. Engineers	DIAMOND	British National Synchrotron
ASIC	application-specific integrated circuit	DI	deionized
ASTM	American Society for Testing and Materials	DMM	digital multi meters
ASME	American Society of Mechanical Engineers	DOF	depth of field
AWG	American Wire Gauge	DOS	Density of States
BAG	Bayard-Alpert Gauge	DP	display page
BBA	beam based alignment	DRO	dielectric resonator oscillator
BDNY	Building Code of New York	DSP	digital signal processor
BDA	beam defining aperture	DW	damping wiggler
BLM	beam loss monitor	EDM	extensible display manager
BM	bending magnet	EELS	electron energy loss spectroscopy
B-M	Bjorken and Mtingwa	EIA	Electronic Industries Alliance
BPM	beam position monitor	ELF	extremely low frequency
B-SR	booster-to-storage ring	EMI	electromagnetic interference
BT	beamline team	EMR	experience modification rate
CA	channel access	EPICS	Experimental Physics and Industrial Control Sys.
CAD	computer aided design	EPR	ethylene propylene rubber
CCG	cold cathode gauge	EPS	equipment protection system
CDI	coherent diffractive imaging	EPU	elliptically polarized undulator
CDW	collimator dispersing wavelength	EPW	elliptically polarizing wiggler
CEM	channel electron multiplier	ESD	emergency shutdown
CESR	Cornell Electron Storage Ring	ESH	environmental safety and health
CMLOG	operator electronic log	ESRF	European Synchrotron Radiation Facility
CMR	colossal magnetoresistance	EUV	extreme ultraviolet
CMS	chemical management system	EXAFS	extended x-ray absorption fine structure
CNM	Center for Nanoscale Materials	FAPM	fixed-aperture photon mask
CNS	central nervous system	FCT	fast current transformer
CNT	carbon nanotube	FDI	Fresnel diffraction imaging
COAF	closed orbit amplification factor	FEA	finite element analysis
COD	closed orbit distortion	FEL	free electron laser
CPGM	collimated plane grating monochromator	FFT	Fast Fourier Transform
CPMU	cryogenic permanent magnet undulator	FHC	facility hazard categorization
CPU	central processing unit	FHVC	fast horizontal and vertical corrector
CRL	compound refractive lens	FOE	front optics enclosure
CVD	chemical vapor deposition	FPGA	field programmable gate array
CVS	Version Control System	FTIR	Fourier Transform Infrared
CXD	coherent x-ray diffraction	FWHM	full width at half maximum

FZP	Fresnel zone plate	MEDM	motif editor display manager
GbE	gigabit ethernet	MGU	minigap in-vacuum undulator
GHe	gaseous helium	MLL	Multilayer Laue Lens
GISAXS	grazing incidence small angle x-ray scattering	MO	master oscillator
GM/CA-CAT	a beamline at APS	MOKE	Magneto-Optic Kerr Effect
GUI	graphical user interface	MRAM	magnetic random access memory
GV	gas valve	MRT	microbeam radiation therapy
Gy	Gray, a unit for measuring radiation	MTF	Modulation Transfer Function
(H)	horizontal measurement	MTJ	magnetic tunnel junctions
H	Henry, a measure of inductance	MXTM	magnetic x-ray transmission microscope
HEPA	high efficiency particulate air	n	nano, 1×10^{-9}
HMI	human interface	nC	nanoCoulomb (measure of electrical charge)
HMTM	Hazardous Material Transportation Manual	NE-CAT	a beamline at APS
HOM	higher order mode	NEG	Non-Evaporable Getter
HP	high pressure, high purity, horse power	NFPA	National Fire Protection Administration
HPS	hazardous production material	NIM	normal incidence monochromator
HTSC	high temperature superconductor	NPE	natural phenomenon event
HTSCU	high temperature superconducting undulator	NRTL	Nationally Recognized Testing Laboratory
HVAC	heating, ventilating, and air conditioning	NSE	neutron spin echo
IBS	intra-beam scattering	OD	outer diameter
ID	inner diameter	ODH	oxygen deficiency hazard
IOC	input/output controller	OHSAS	Occupational Health and Safety Adm. Standards
IOT	inductive output tube	OPI	operator interface
ISO	International Organization for Standardization	OSA	order sorting aperture
ISF	Intermediate scattering function	OSHA	Occupational Safety and Health Administration
IT	information technology	PAT	Photon Activation Therapy
IVPMU	in-vacuum permanent magnet undulator	PCI	phase contrast imaging
IVU	in-vacuum undulator	PDB	Protein Data Bank
IXS	inelastic x-ray scattering	PDP	parameter display page
KB	Kirkpatrick-Baez	PDS	power density structure
KM	knob manager	PEEM	photoelectron emission microscopy
LCLS	Linac Coherent Light Source	PFN	pulse-forming network
LCP	left circular polarization	PGM	plane grating monochromator
LDDM	laser doppler displacement meter	ph/s	photons per second
LEBT	low energy beam transport	PHA	preliminary hazards analysis
LEED	Leadership in Energy and Environmental Design	PID	proportional integral derivative
LEEM	low energy electron microscopy	PLC	programmable logic controller
LHe	liquid helium	PM	permanent magnet
Linac	linear accelerator	PMS	position monitoring system
LID	long insertion device	PPM	pure permanent magnet
LLRF	low level radio frequency	PPMS	physical properties measurement system
LN ₂	liquid nitrogen	PPS	personnel protection system
LOI	letters of intent	PRF	pulse repetition frequency
LPDOS	Local Partial Density of States	PSD	photon stimulated gas desorption; also, position sensitive detector
LPG	low pressure gas		
LPPS	Linac Personnel Protection System	ps	picosecond
LTS	low temperature superconductor	psf	pounds per sq ft
LVS	layout vs. schematics	PSF	Point Spread function
mA	milli-Amps	PSM	pulse step modulation
m	meter, or milli, if a prefix	PTS	permanent threshold shift
M	million, or mega-	PV	process variable
MLM	multilayer mirror	PX	protein or macromolecular crystallography
MBE	molecular beam epitaxy	PZT	piezoelectric transducer
MCI	maximum credible incident	QAM	quality assurance manager
MCL	multichannel line	QPU	quasi-periodic undulator
MCP	multichannel plate	rad	radian

RCP	right circular polarization	TBA	three-bend achromatic
RDB	relational database	TC	thermocouples
RF	radio frequency	TEM	transmission electron microscopy
RFI	radio frequency interference	THz	terrahertz
RGA	residual gas analyzer	TIA	Telecommunications Industry Alliance
RH	relative humidity	TIG	tungsten inert gas
RIE	reactive ion etching	TMCI	transverse mode coupling instability
RL	refrigerator/liquefier	TMP	turbomolecular pump
RMS	root mean square	TRC	total recordable cases
RTOS	real-time operating system	TSP	titanium sublimation pump
SAA	satellite accumulation area	TXM	transmission x-ray microscope
SAD	safety assessment document	UBPM	user beam position monitors
SAXS	small angle x-ray scattering	UHR	ultra high resolution
SBMS	Subject-Based Management System	UHV	ultra high vacuum
SCL	single-channel line	UPS	uninterruptible power supply
SCRF	superconducting radio frequency	USAXS	ultra small angle x-ray scattering
SCU	superconducting undulator	UV	ultraviolet
SCW	superconducting wiggler	(V)	vertical measurement
SF	synchrotron footprinting	VLS	variable line spacing
SFMs	scanning (atomic) force microscope, also AFM	VPU	variable polarization undulator
SID	short ID	VUV	vacuum ultraviolet
SIP	sputter ion pump	WBS	white beam slit
SMR	spherical mounted retro-reflector	WFG	waveform function generator
SNC	State Notation Compiler	XANES	x-ray absorption near-edge structure
SNL	State Notation Language	XAS	x-ray absorption spectroscopy
SNR	signal-to-noise ratio	XES	x-ray emission spectroscopy
SOE	Second Optic Enclosure	XMCD	x-ray magnetic circular dichroism
SPES	spin polarized photoemission studies	XPCS	x-ray photon correlation spectroscopy
SPring-8	Japanese National Synchrotron	XRMS	x-ray resonant magnetic scattering
SR	synchrotron radiation, also storage ring	YAGC	yttrium aluminum garnet cerium
SRW	synchrotron radiation workshop		
STM	scanning tunneling microscope		
STXM	scanning transmission x-ray microscope		
SVD	singular value decomposition		
SXU	soft x-ray undulator		