

Acronyms and Abbreviations

ADC	analog digital converter
ADMX	Axion Dark Matter eXperiment, USA
AGB	asymptotic giant branch
AGS	alternating gradient synchrotron
ALP	axion-like particle
BBN	big bang nucleosynthesis
BFRT	Brookhaven-Fermilab-Rochester-Trieste
BNL	Brookhaven National Laboratory, USA
BR	branching ratio
BSMM	beyond the SM model
CAST	CERN Axion Solar Telescope, CERN Geneva
CCD	charge coupled device
CDM	cold dark matter
CKM	Cabbibo-Kobayashi-Maskawa
CKT	Csáki-Kaloper-Terning
CL	confidence level
CMB	cosmic microwave background
CMBR	cosmic microwave background radiation
CMD	cryogenic magnetic detector
CME	Cotton-Mouton effect
COBE	Cosmic Background Explorer, NASA
COMPASS	Common Muon Proton Apparatus for Structure and Spectroscopy, CERN Geneva
CP	charge conjugation transformation followed by parity transformation
DAMA	Dark Matter Experiment, Laboratori Nazionali del Gran Sasso, Italy
DAQ	data acquisition
DFSZ	Dine-Fischler-Schrednicki-Zhitnisky
DM	dark matter
DRIFT	Directional Recoil Identification From Tracks, Boulby Underground Laboratory, UK
EDM	electric dipole moment
EoS	equation of state

FCNC	flavour changing neutral current
FET	field-effect transistor
FFT	fast Fourier transform
FIRAS	Far Infrared Absolute Spectrophotometer, NASA
FP	Fabry-Pérot
GECOSAX	Geomagnetic Conversion of Solar Axions
HEP	high energy physics
HERA	Hadron-Electron Ring Accelerator Facility, DESY Hamburg
HERMES	HERA measurement of spin, DESY Hamburg
HFET	heterostructure field-effect transistor
IF	intermediate frequency
IGM	intergalactic medium
ILC	International Linear Collider
ILIAS	Integrated Large Infrastructures for Astroparticle Science
INFN	Istituto Nazionale di Fisica Nucleare, Italy
KEK	National Laboratory for High Energy Physics, Japan
KSVZ	Kim-Shifman-Vainshtein-Zakharov
LHC	Large Hadron Collider, CERN Geneva
LHe	liquid helium
LHS	left hand side
LLNL	Lawrence Livermore National Laboratory, USA
LOI	letter of intent
MDM	magnetic dipole moment
MICROMEAS	Micromesh Gaseous Structure
NRAO	National Radio Astronomy Observatory, USA
OSQAR	Optical search for QED vacuum magnetic birefringence, Axions and photon regeneration; CERN Geneva
P	parity transformation
PAC	program advisory committee
PQ	Peccei-Quinn
pQCD	Perturbative Quantum Chromodynamics
PVLAS	Polarizzazione del Vuoto con Laser, INFN, Italy
QCD	quantum chromodynamics
QED	quantum electrodynamics
QM	quantum mechanics
QSO	quasi stellar object – quasar
QWP	quarter-wave-plate
RGB	red giant branch
RHS	right hand side
RXTE	Rossi X-ray Timing Explorer
SM	standard model
SN	supernova
SNOC	SuperNova Observation Calculator

SNR	signal to noise ratio
SNS	spallation neutron source
SOLAX	Solar Axion Experiment, Sierra Grande, Argentina
SOM	stress optical modulator
SQUID	superconducting quantum interference devices
SREDM	Storage Ring EDM collaboration
SSB	spontaneous symmetry breaking
SSM	standard solar model
SUSY	supersymmetry
T	time reversal transformation
TE	transverse electric
TES	transition edge sensor
TM	transverse magnetic
TPC	time projection chamber
UCN	ultra cold neutron
VEV	vacuum expectation value
WIMP	weakly interacting massive particle
WMAP	Wilkinson Microwave Anisotropy probe
XIS	X-ray Imaging Spectrometer

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