



[Most Recent Technical Activities](#)

ACRONYMS & ABBREVIATIONS

This list is provided as a reference for the NIST Physics Laboratory's *Technical Activities* publication. It is not intended as a comprehensive list in the area of physics.

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Numeric

4WM Four Wave Mixing

A

AAMI Association for the Advancement of Medical Instrumentation
 AAPM American Association of Physicists in Medicine
 ACR (ACRii) Absolute Cryogenic Radiometer (second upgrade)
 ACS American Chemical Society
 ACTS Automated Computer Time Service
 ADCL Accredited Dosimetry Calibration Laboratory
 ADMIT Analytical Detection Methods for the Irradiation Treatment of foods
 AECL Atomic Energy Canada Limited
 AEDC Arnold Engineering Development Center
 AFB Air Force Base
 AFGL Air Force Geophysics Laboratory
 AFM Atomic Force Microscope
 AFOSR Air Force Office of Scientific Research
 AFPL Air Force Phillips Laboratory
 AFRI Armed Forces Radiobiology Research Institute
 AI Associative Ionization
 AIAA American Institute for Aeronautics and Astronautics
 AIGER American Industry Government Emissions Research Consortium
 AIP American Institute of Physics
 ALG Advanced Lithography Group
 AM amplitude modulation
 AM1 First Launch in the morning series of EOS platforms
 AMMAC Mexican Metrology Association
 AMO Atomic, Molecular and Optical
 AMS Accelerator-Mass Spectrometry
 ANS American Nuclear Society

ANSI	American National Standards Institute
ANSOM	Apertureless Near-Field Scanning Optical Microscopy
ANVIS	Aviator Night Vision Imaging System
APAS	Astrophysical, Planetary and Atmospheric Sciences
APHIS	Animal and Plant Health Inspection Service
APOMA	American Precision Optics Manufacturers Association
APRF	Army Pulse Radiation Facility
APS	American Physical Society <i>or</i> Advanced Photon Source
APT	Annular Proton Telescope
ARO	Army Research Office
ARPES	Angle Resolved Photoelectron Spectroscopy
ART	Algebraic Reconstruction Technique
ASCA	Advanced Satellite for Cosmology & Astrophysics
ASCA	Japan-NASA X-ray Satellite
ASME	American Society for Mechanical Engineers
ASSI	Airglow Solar Spectrometer Instrument
ASTER	Advance Spaceborne Thermal Emission and Reflectance Radiometer
ASET	Association of Super-advanced Electronics Technologies
ASTM	American Society for Testing and Materials
AT&T	Atlantic Telephone & Telegraph
ATD	Above-Threshold Dissociation
ATI	Above-Threshold Ionization
ATLAS	Atmospheric Laboratory for Applications and Science
ATP	Advanced Technology Program
ATW	Accelerator Transmutation of Waste
AURA	Association of Universities for Research in Astronomy
AXAF	Advanced X-ray Astrophysical Facility
AXAF-I	Imaging Advanced X-ray Astrophysical Facility
AXAF-S	Spectroscopy Advanced X-ray Astrophysical Facility

B

BARC	Bhabha Atomic Research Centre
BB	Blackbody
BB	Broad-bandwidth
BBIR	Broad Band Infrared
BBO	Beta-Barium Borate
BBXRT	Broad-Band X-Ray Telescope
BCC	Broadband Calibration Chamber
BCS	Bardeen-Cooper-Schrieffer theory of superconductivity
BCS	Bragg Crystal Spectrometer
BEB	Binary-encounter-Bethe
BEC	Bose-Einstein Condensation
BED	Binary-encounter-dipole
BEEM	Ballistic Electron Emission Spectroscopy
BEV	Bundesamt für Eich- und Vermessungswesen, Vienna, Austria
BFRL	Building & Fire Research Laboratory

BGSM	Bowman Gray School of Medicine
BIB	Blocked Impurity Band
BIFL	Burst Integrated Fluorescence
BIPM	Bureau International des Poids et Mesures
BL	Beam Line at SURF-III
BMDO	Ballistic Missile Defense Organization
BNL	Brookhaven National Laboratory
BNM	National Bureau of Metrology, France
BOMAB	Bottle Manikin Absorber
BRAN	Boulder Research and Administrative Network
BRDF	Bidirectional Reflectance Distribution Function
BSDF	Bidirectional Scattering Distribution Function
BSS	Beta Secondary System
BSS.2	Beta-Particle Secondary Standards System
BTI	Bubble Technology, Inc.
BWO	Backward Wave Oscillator
BXR	BMDO Transfer Radiometer



C

CAD	Computer Aided Design
CAM	Computer Aided Machining
CAMOS	Committee on Atomic, Molecular and Optical Sciences
CAO	Carlsbad Area Office
CARB	Center for Advanced Research in Biotechnology
CARS	Coherent Anti-Stokes Raman Spectroscopy
CASS	Calibration Accuracy Support System
CAST	Council of Agricultural Science and Technology
CBNM	Central Bureau for Nuclear Measurements
CCD	Charged Coupled Device
CCDM	Consultative Committee for the Definition of the Meter
CCDS	Consultative Committee for the Definition of the Second
CCE	Consultative Committee on Electricity
CCEMRI	Consultative Committee for Ionizing Radiations, CIPM
CCG	Calibration Coordination Group
CCP6	Collaborative Computational Project 6
CCPR	Consultative Committee on Photometry and Radiometry
CCRI	Comité Consultatif des Rayonnements Ionisants
CCTF	Consultative Committee for Time and Frequency
CDRH	Center for Devices and Radiological Health
CEL	Correlated Emission Laser
CEMRC	Carlsbad Environmental Monitoring Research Center
CERES	Clouds and Earth's Radiant Energy System
CFS	Constant-Final-State Spectroscopy
CHEM-1	Chemistry
CIAQ	Committee on Indoor Air Quality
CIE	Commission Internationale De L'Éclairage

CIPM	International Committee of Weights and Measures, France
CIRMS	Council on Ionizing Radiation Measurements and Standards
CIRRPC	Committee on Interagency Radiation Research and Policy Coordination
CIS	Constant-Initial-State Spectroscopy
CMC	Calibration Measurement Capabilities
CMR	Colossal Magnetoresistance
CNIF	Californium Neutron Irradiation Facility
CNRF	Cold Neutron Research Facility
CODATA	Committee on Data for Science and Technology
CORM	Council for Optical Radiation Measurements
COSPAR	Committee on Space Research
CPIC	International Physics Center, Elba
CPT	conjugation, parity, and time
CPU	Central Processing Unit
CR	Cascaded Rectifier Accelerator
CRADA	Cooperative Research and Development Agreement
CRCPD	Conference of Radiation Control Program Directors
CRDS	Cavity-Ring-Down Spectroscopy
CRI	Cambridge Research Instrumentation
CRP	Coordinated Research Program
CRT	Cathode Ray Tube
CRYRING	Electron Accelerator and Storage Ring Facility (Stockholm, Sweden)
CSDA	Continuous-Slowing-Down Approximation
CSEWG	Cross Section Evaluation Working Group
CSI	Compton Scatter Imaging
CSIC	Consejo Superior de Investigaciones Científicas
CSIR	Council of Scientific and Industrial Research
CSTL	Chemical Science and Technology Laboratory
CT	Computed Tomographic
CTI	Critical Technologies Institute
CU	University of Colorado
CVD	Chemical Vapor Deposition
cw (CW)	continuous wave
CXRO	Center for X-Ray Optics at Berkeley, CA
CY	Calendar Year

D

DARPA	Defense Advanced Research Project Agency
DEC	Digital Electronics Corporation
DMA	Defense Mapping Agency
DNA	Deoxyribose Nucleic Acid <i>or</i> Defense Nuclear Agency
DOC (DoC)	Department of Commerce
DOD (DoD)	Department of Defense
DOE (DoE)	Department of Energy
DOELAP	Department of Energy Laboratory Accreditation Program
DORT	Discrete Ordinates Code

DPPC	dipalmitoylphosphatidylcholine
DRAM	Dynamic Random Access Memory
DRIP	Detector Response Intercomparison Program
DR-SFG	Doubly Resonant Sum Frequency Generation
DSA	Digital Subtraction Angiography
DSC	differential scattering cross section
DVM	Digital Voltmeter
DUV	Deep Ultraviolet

 **E**

EBIS	Electron Beam Ion Source
EBIT	Electron Beam Ion Trap
ec	electron-capture
ECP	Effective Core Potential
ECPR	Electrically-Calibrated Pyroelectric Radiometer
ECR	Electron Cyclotron Resonance
ECRIS	Electron-Cyclotron-Resonance Ion Source
ECS	Energy-Corrected-Sudden
ECSED	Electronic Commerce in Scientific and Engineering Data
EDX	Energy-Dispersive X-ray Analysis
EEEL	Electronics & Electrical Engineering Laboratory
EELS	Electron Energy Loss Spectroscopy
EEO	Equal Employment Opportunity
EEP	Einstein Equivalence Principle
EM	Environmental Management
ENEA	Ente per le Nuove Tecnologie, L'Energia E L'Ambiente
ENDF	Evaluated Nuclear Data File
ENDL	Evaluated Nuclear Data Library
ENSDF	Evaluated Nuclear Structure Data File
EOM	Electro-Optic Modulator
EOS	Earth Observing System
EPA	Environmental Protection Agency
EPIC	Earth Polychromatic Imaging Camera
ERATO	Exploratory Research for Advanced Technology Office
EROS	Electric Resonance Optothermal Spectrometer
ESA	European Space Agency
ESB	Electrical Substitution Bolometer
ESDIAD	Electron-Stimulated Desorption Ion Angular Distributions
ESO	European Southern Observatory
ESR	Experimental Storage Ring <i>or</i> Electrical Substitution Radiometer
ESR	Electron Spin Resonance (EPR now preferred)
ETI	Environmental Technology Initiative
ETRAN	Monte Carlo computer code for Electrons and Photons through Extended Media
EURADOS	European Radiation Dosimetry Group
EURATOM	European Nuclear Energy Organization
EUROMET	A European collaboration in measurement standards

EUV	Extreme Ultraviolet
EUVE	Extreme Ultraviolet Explorer
EUVL-LLC	EUV Lithography - Limited Liability Corporation
EXAFS	Edge X-ray Absorption Fine Structure

 **F**

FAA	Federal Aviation Administration
FACSS	Federation of Analytical Chemistry and Spectroscopy Societies
FAD	FASCAL Absolute Detector
FARCAL	Facility for Advanced Radiometric Calibrations
FASCAL	Facility for Automatic Spectroradiometric Calibrations
FCCSET	Federal Coordinating Council Science, Engineering and Technology
FCDC	Fundamental Constants Data Center
FCPM	Fundamental Constants and Precision Measurements
FDA	U.S. Food and Drug Administration
FEA	Field-Emitter Array
FED	Field-Emitter Display
FEL	Free Electron Laser
FEMA	Federal Emergency Management Agency
FET	Field Effect Transistor
FIMS	Fissionable Isotope Mass Standards
FIR	Far Infrared
FLIR	Forward Looking Infrared Radiometer
FM	Frequency Modulation
FNR	Ford Nuclear Reactor
FOS	Faint Object Spectrograph
FOV	Field of View
FPC	Fullerene Production Chamber
FR	Filtered Radiometer
FRET	Fluorescence Resonant Energy Transfer
FT	Fourier Transform
FT-IRAS	Fourier Transform-Infrared Reflection Absorption Spectroscopy
FTIR	Fourier Transform Infrared
FTMS	Fourier Transform Microwave Spectroscopy
FTMW	Fourier Transform Microwave
FTS	Fourier Transform Spectroscopy
FUSE	Far Ultraviolet Spectroscopic Explorer
FUV	Far Ultraviolet
FWHM	Full Width at Half Maximum
FY	Fiscal Year

 **G**

GAMS 4 (GAMS4)	NIST High Resolution Spectrometer
GDRIMS	Glow-Discharge Resonance Ionization Mass Spectrometry
GEC	Gaseous Electronics Conference
GFP	Green Fluorescent Protein

GHRS	Goddard High Resolution Spectrograph
GIM	Grazing-Incidence Monochromator
GINGA	Japanese X-ray Satellite
GMR	Giant Magnetoresistance
GOES	Geostationary Operational Environmental Satellite
GPIB	General Purpose Instrumentation Bus
GPS	Global Positioning System
GRI	Gas Research Institute
GRT	Germanium Resistance Thermometer
GSFC	Goddard Space Flight Center
GSI	Gesellschaft für Schwerionenforschung
GVHD	Graft-Versus Host Disease




 **H**

HACR	High Accuracy Cryogenic Radiometer
HALO	Hypersonic Aircraft Launch Option
HBM	Hybrid Bilayer Membrane
HCCD	Mono-deuterated Acetylene
HDR	High Dose Rate
HECT	High-Energy Computed Tomography
HFIR	High Flux Isotope Reactor
HID	High Intensity Discharge
HIRDLS	High Resolution Dynamics Limb Sounder
HPGe	High Purity Germanium
HPLC	High Pressure Liquid Chromatographic
HPS	Health Physics Society
HPSSC	Health Physics Society Standards Committee
HR3DCT	High Resolution 3-D Computed Tomography
HRTS	High Resolution Telescope Spectrograph
HSST	Heavy Section Steel Technology
HST	Hubble Space Telescope
HTBB	High-Temperature Black Body
HTD	Heat Transfer Division
HTS	High-Temperature Superconductivity
HUT	Hopkins Ultraviolet Telescope
HVL	Half-Value Layer

 **I**

IAEA	International Atomic Energy Agency
IAG	International Association of Gravity
IAU	International Astronomical Union
IC	Integrated Circuit
ICAMDATA	International Conference on Atomic and Molecular Data
ICP	Inductively Coupled Plasma
ICPEAC	International Conference on the Physics of Electronic and Atomic Collisions
ICRM	International Committee for Radionuclide Metrology

ICRP	International Commission on Radiological Protection
ICRU	International Commission on Radiation Units and Measurements
ID (id or i.d.)	inside diameter
IDMS	Isotope Dilution Mass Spectrometry
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
IEN	Istituto Elettrotecnico Nazionale (Italy)
IES	Illumination Engineering Society
IESNA	Illumination Engineering Society of North America
IGC	International Gravity Commission
IHPRPTP	Integrated High Payoff Rocket Propulsion Technology Program
ILL	Institut Laue Langevin
ILS	International Laser Spectroscopy
IMECE	International Mechanical Engineering Congress and Exposition
IMGC	Istituto di Metrologia "G. Colonnetti" (Italy)
IMS	Institute for Molecular Science
INDC	International Nuclear Data Committee
INISO-TTC	Experimental Radiochromic Film
INM	Institute National de Metrologie
INMM	Institute for Nuclear Materials Management
INMRI-ENEA	Istituto Nazionale di Metrologia delle Radiazioni Ionizzanti - Ente per le Nuove Tecnologie
IPNS	Intense Pulsed Neutron Source
IPSN	L'Institut de Protection et de Sûreté Nucléaire
IPTS	International Practical Temperature Scale
IQEC	International Quantum Electronics Conference
IQI	Image Quality Indicators
IR	Infrared
IRAS	Infrared Astronomical Satellite <i>or</i> Infrared Reflection Absorption Spectroscopy
IRB	Institutional Review Board
IRDCF	Infrared Detector Calibration Facility
IRMM	Institute of Reference Materials and Measurements
ISCC	Inter-Society Color Council
ISO	International Organization for Standardization
ISP	International Specialty Products
ISCC	Information System to Support Calibrations
ISS	International Space Station
ISSI	International Space Science Institute (Bern, Switzerland)
ITAMP	International Meeting of Theory of Atomic and Molecular Physics
ITL	Information Technology Laboratory
ITEP	Institute for Theoretical and Experimental Physics
ITER	International Thermonuclear Experimental Reactor
ITS	International Temperature Scale
ITU	International Telecommunication Union
IUCr	International Union of Crystallography
IUE	International Ultraviolet Explorer
IVBT	Intravascular Brachytherapy
IVR	

	Intramolecular Vibrational Relaxation
IVR	Intramolecular Vibrational Redistribution
IWG	Investigators Working Group
 K	
KCDB	Key Comparison and Calibration Database
 J	
JAERI	Japan Atomic Energy Research Institute
JANNAF	Joint Army-Navy-NASA-Air Force
JCCRER	U.S.-Russia Joint Coordinating Committee on Radiation Effects Research
JCGM	Joint Committee for Guides on Metrology
JCMT	James Clerk Maxwell Telescope
JET	Joint European Torus
JILA	formerly Joint Institute Laboratory for Astrophysics
JEOL	JEOL USA, Inc.
JPL	Jet Propulsion Laboratory
 L	
LAGOS	Laser Gravitational-Wave Observatory in Space
LAMPF	Los Alamos Meson Physics Facility
LAMSCAL	Large Area Monochromatic Source for Calibrations
LANL	Los Alamos National Laboratory
LANSCE	Los Alamos Neutron Scattering Center
LASP	Laboratory for Atmospheric and Space Physics, University of Colorado
LBIR	Low Background Infrared Radiometry
LBL	Lawrence Berkeley Laboratory
LBRS	Low Background Reference System
LCD	Liquid Crystal Display
LCIF	Laser-Collision-Induced Fluorescence
LED	Light Emitting Diode
LEED	Low Energy Electron Diffraction
LEI	Laser-Enhanced Ionization
LET	Linear Energy Transfer
LF	Low Frequency
LIF	Laser Induced Fluorescence
LIGO	Laser Interferometric Gravitational-Wave Observatory
LISA	Laser Interferometer Space Antenna
LLNL	Lawrence Livermore National Laboratory
LMR	Laser Magnetic Resonance
LMRI	Laboratoire de Mesure des Rayonnements Ionisants (France)
LO	Laser Optics
LORAN-C	A Radio Navigation System Operated by the U.S. Coast Guard
LPM	Light-Particle Monitor
LPRI	Laboratoire Primaire des Rayonnements Ionisants, Gif-sur-Yvette, France
LPRT	Light-Pipe Radiation Thermometers

LPTF	Laboratoire Primaire du Temps et des Fréquences
LS	Liquid Scintillation
LSC	Liquid Scintillation Counting
LTE	Local Thermodynamic Equilibrium
LT	Low-Temperature
LTEC	Lamp Testing Engineers Conference
LTG	Low-Temperature Growth
LVIS	Low Velocity Intense Source
LWIR	Long Wave Infrared

M

MARLAP	Multi-Agency Radiological Laboratory Procedures
MARS	Multiple-Angle Reference System
MBE	Molecular Beam Epitaxy
MBIR	Medium Background Infrared Facility
MBOS	Molecular-Beam Optothermal Spectrometer
MCNP	Monte Carlo Neutron Photon (computer code)
MCQDT	Multi Channel Quantum Defect Theory
MCT	Mercury-cadmium-telluride
MCU	Mobile Calibration Unit
MDRF	Materials Dosimetry Reference Facility
MEA	Materials Engineering Associates
MEA	membrane electrode assembly
MEDEA	Microelectronics Development for European Applications
MEIBEL	Merged Electron-Ion Beam Energy Loss
MEL	Manufacturing Engineering Laboratory
MEMS	Micro Electro Mechanical Systems
MET	Medium Energy Telescope
MEVVA	Metal Vapor Vacuum Arc
MIDAS	Modular Interactive Data Acquisition System
MIL	Military
MIM	Metal-Insulator-Metal (Diode)
MIRD	Medical Internal Radiation Dose (committee)
MIRF	Medical and Industrial Radiation Facility
MISR	Multi-angle Imaging Spectroradiometer
MIT	Massachusetts Institute of Technology
MJD	Modified Julian Date
MMI	Mallinckrodt Medical, Inc.
MOBY	Marine Optical Buoy
MOCVD	Metal Organic Chemical Vapor Deposition
MODIL	Manufacturing Operations Development & Integration Laboratory
MODIS	Moderate Resolution Imaging Spectrometer
MOEMS	Micro Opto Electro Mechanical Systems
MOKE	Magneto-Optical Kerr Effect
MOPITT	Measurement of Pollution In The Troposphere
MOS	Marine Optical System <i>or</i> Marine Optical Spectrograph

MOSFET	Metal Oxide Semiconductor Field Effect Transistor
MOT	Magneto Optical Trap
MQDT	Multichannel Quantum Defect Theory
MPD	Multiphoton Detector
MPI	Multiphoton Ionization
MPP	Multi-Pinned Phasing
MQA	Measurement Quality Assurance
MQDT	Multichannel Quantum Defect Theory
MQSA	Mammography Quality Standards Act
MRA	Mutual Recognition Arrangement
MRI	Magnetic Resonance Imaging
MRT	Minimal Resolvable Temperature
MSEL	Materials Science and Engineering Laboratory
MSX	Midcourse Space Experiment
MTG	Methanol To Gasoline
MURR	University of Missouri Research Reactor
MW	Microwave



N

NAMP	National Analytical Management Program
NAMT	National Advanced Manufacturing Testbed
NAPM	National Association of Photographic Manufacturers
NAS	National Academy of Sciences
NAS/NRC	National Academy of Sciences/National Research Council
NASA	National Aeronautics and Space Administration
NATO	North Atlantic Treaty Organization
NBS	National Bureau of Standards, now NIST
NBS-4	Older Primary Frequency Standard (retains the NBS name)
NBS-6	Previous Primary Frequency Standard (retains the NBS name)
NBSR	National Bureau of Standards' Reactor (retains the NBS name)
NCAR	National Center for Atmospheric Research
NCI	National Cancer Institute
NCNR	NIST Center for Neutron Research
NCRP	National Council on Radiation Protection and Measurements
NCSCANS	National Steering Committee for the Advanced Neutron Source
NCSL	National Conference of Standards Laboratories
ND	Neutron Density
NDT	Nondestructive Testing
Nd:YAG	Neodymium: Yttrium-Aluminum-Garnet (YAG doped with Nd)
NEANDC	Nuclear Energy Agency Nuclear Data Committee
NEANSC	Nuclear Energy Agency Nuclear Science Committee
NEC	Nippon Electric Corporation
NED	Nuclear Effects Directorate
NEI	Nuclear Energy Institute
NELAC	National Environmental Laboratory Accreditation Conference
NEOS	Newport Electro-Optic Systems

NERI	Nuclear Energy Research Initiative
NESDIS	National Environmental Satellite Data and Information Service
NEWRAD	New Radiometry
NG6, NG-6	Monochromatic Beam Line near the end of NG6
NG6M	Neutron Guide No. 6
NG7	Neutron Guide No. 7
NGS	National Geological Society
NICE-OHMS	Noise-Immune Cavity Enhanced Optical Heterodyne Molecular Spectroscopy
NI&D	Nuclear Interactions and Dosimetry
NIDR	National Institute of Dental Research
NIF	National Ignition Facility
NIH	National Institutes of Health
NIM	Normal-Incidence Monochromator <i>or</i> National Instrumentation Methods
NIOF	Neutron Interferometry and Optics Facility
NIPDE	National Initiative for Product Data Exchange
NIR	Near Infrared
NIST	National Institute of Standards and Technology
NIST-7	Former NIST Primary Frequency Standard
NIST-F1	Current NIST Primary Frequency Standard
NISTAR	NIST Advanced Radiometer
NMI	National Metrology Institute <i>or</i> National Measurement Institute
NML	National Measurement Laboratory (Japan)
NMR	Nuclear Magnetic Resonance
NMS	Natural Matrix Standard
NOAA	National Oceanic and Atmospheric Administration
NOAO	National Optical Astronomy Observatory
NOBCChe	National Organization for the Professional Advancement of Black Chemists and Chemical Engineers
NORA	Non-Overlapping Redundant Array
NORAMET	A North American regional collaboration in national measurement standards and services
NPL	National Physical Laboratory (U.K.)
NPOESS	National Polar-orbiting Operational Environmental Satellite
NPSS	Nuclear and Plasma Sciences Society
NRC	National Research Council
NRC	Nuclear Regulatory Commission
NRCC	National Research Council Canada
NREL	National Renewable Energy Laboratory
NRIP	NIST Radiochemistry Intercomparison Program
NRL	Naval Research Laboratory
NRLM	National Research Laboratory of Metrology (Japan)
NRRS	Near Resonance Rayleigh Scattering
NSA	National Security Agency
NSBP	National Society of Black Physicists
NSCANS	National Steering Committee for the Advanced Neutron Source
NSF	National Science Foundation
NSLS	National Synchrotron Light Source, Brookhaven National Laboratory

NSOM	Near-Field Scanning Optical Microscopy
NTSB	National Transportation Safety Board
NVIS	Night Vision Imaging System
NVLAP	National Voluntary Laboratory Accreditation Program

 **O**

OAI	Optical Associates, Inc.
OCLI	Optical Cooling Laboratory Incorporated
OD	Optical Density
OE	Optical Engineering
OFS	Österreichisches Forschungszentrum
OIML	International Organization of Legal Metrology
OMEGA	24-Beam Laser Facility at Rochester
OMH	National Office of Measures (Hungary)
ONR	Office of Naval Research
OPA	Optical Parametric Amplifier
OPO	Optical Parametric Oscillator
OPTCON	International conference sponsored by 3 agencies: Optical Society of America; Society of Photo-optical Instrumentation Engineers; and Institute of Electrical and Electronics Engineers
ORM	Office of Radiation Measurement
ORELA	Oak Ridge Electron Linear Accelerator
ORNL	Oak Ridge National Laboratory
OSA	Optical Society of America
OSL	Optical Stimulated Luminescence
OSRD	Office of Standard Reference Data
OSTP	Office of Science and Technology Policy
OTD	Optical Technology Division

 **P**

PA	Proton Affinity
PADE	Parallel Applications Development Environment
PARCS	Primary Atomic Reference Clock in SPACE
PC	Personal Computer
PCB	polychlorinated biphenyl
PDC	Parametric down-conversion
PDE	Product Data Exchange
PDML	Photovoltaic Device Measurement Laboratory
PE	Performance Evaluation
PECVD	Plasma-Enhanced Chemical Vapor Deposition
PEM	polymer-electrolyte-membrane
PES	Photoelectron Spectroscopy
PET	Positron Emission Tomography
PFID	Perturbed Free Induction Decay
PID	Proportional, Integral, and Derivative
PIXE	Particle Induced X-ray Emission
PL	Physics Laboratory

PM	phase modulation
PMG	Precision Measurement Grant
PMMA	polymethylmethacrylate
PMS	Particle Measurement System
PMT	Photomultiplier Tube
PNL	Pacific Northwest Laboratory
PNNL	Pacific Northwest National Laboratory
PNR	Polarized Neutron Reflectivity
POC	Physical Optics Corporation
POP	Plasma Oscillation Probe
POPA	Panel on Public Affairs of American Physical Society
PREP	Professional Research Experience Program
PRF	Petroleum Research Fund
PRL	Physical Review Letters
PRM	Precision Radiation Measurement
PS	Polystyrene
PSD	Photon-Stimulated Desorption
PSL	Polystyrene-latex
PT	Performance Testing
PTB	Physikalisch-Technische Bundesanstalt (Germany)
PTCA	Percutaneous Transluminal Coronary Angioplasty
PTFE	Polytetrafluoroethylene
PTI	Proxima Therapeutics, Inc.
PUD	Paired Uranium Detector
PWR	Pressurized-Water Reactor
PWS	Primary Working Standard
PZT	Piezoelectric Transducer



Q

QA/QC	Quality Assurance/Quality Control
QCD	Quantum Chromodynamics
QED	Quantum Electrodynamics
QELS	Quantum Electronics and Laser Science
QFT	Quantum Field Theory
QMD	Quantum Metrology Division
QNLC	quenched narrow-line laser cooling
QPD	Quantum Physics Division



R

RAC	Research Advisory Committee
R&D	Research & Development
RBE	Relative Biological Efficiency
RBS	Rutherford Backscattering
RDP	Rubidium Di-Hydrogen Phosphate
REDA	Resonant-Excitation-Double-Autoionization
REI	Rad Elec, Inc.

RESL	Radiological and Environmental Science Laboratory
RF (rf)	Radio Frequency
RHEED	Reflection High Energy Electron Diffraction
RIMS	Resonance Ionization Mass Spectrometry
RKR	Rydberg-Klein-Rees
RNA	Ribonucleic Acid
ROSAT	Roentgensatellit
ROSPEC	Rotating Spectrometer for Neutrons
RS-232	An IEEE Standard Bus
RTC	Radiochromic Film Task Group
RTP	Rapid Thermal Processing

 **S**

SACR	Space-based Active Cavity Radiometer
SAM	Self-Assembled Monolayer
SANS	Small-Angle Neutron Scattering
SBIR	Small Business Innovation Research
SCAMPY	Scanning Micro Pyrometer
SCATMECH	Consortium of 14 U.S. Semiconductor Manufacturers
SCC	Standards Coordinating Committee <i>or</i> Spectral Calibration Chamber
SCF	Spectral Comparator Facility
SCLIR	Secondary Calibration Laboratories for Ionizing Radiation
SDI	Strategic Defense Initiative
SDIO	Strategic Defense Initiative Organization
SDL	Space Dynamics Laboratory
SEAWIFS (SeaWiFS)	Sea-Viewing of Wide Field Sensor
SEBA	Standards' Employees Benefit Association
SEM	Scanning Electron Microscope
SEMATECH	Consortium of 14 U.S. Semiconductor Manufacturers
SEMPA	Scanning Electron Microscopy with Polarization Analysis
SFA	Sachs Freeman and Associates
SFCP	Special Foreign Currency Program
SFG	Sum Frequency Generation
SI	Système International d' Unités <i>or</i> International System of Units
SIA	Semiconductor Industry Association
SID	Society for Information Display
SIMS	Secondary Ion Mass Spectrometry
SIRCUS	Spectral Irradiance and Radiance Calibration with Uniform Sources
SIRREX-3	SeaWiFS Intercalibration Round-Robin Experiment
SKACR	Superconducting Kinetic-inductance Absolute Cryogenic Radiometer
SLM	Synthetic Layer Microstructure
SME	Solar Mesosphere Explorer
SM	Single Molecule
SNOM	Scanning Near Field Optical Microscope
SOG	Spin-on Glass
SOLSPEC	Solar Spectrometer

SOLSTICE	Solar Stellar Irradiance Comparison Experiment
SPIE	Society of Photo-optical Instrumentation Engineers
SPP	Storage Photostimulable Phosphor
SQL	Structured Query Language
SRAM	Static Random Access Memory
SRDP	Standard Reference Data Program
SRM	Standard Reference Material
SSBUV	Shuttle Solar Backscatter Ultraviolet
SSC	Superconductor Super Collider
SSDL	Secondary Standard Dosimetry
SSPM	Solid State Photomultipliers
SSRCR	State Suggested Regulations for Controlling Ionizing Radiations
SSTR	Solid State Track Recorder
SSUV	Shuttle Solar Ultraviolet
STARR	Spectral Tri-function Automated Reference Reflectometer
STD	Standard
STM	Scanning Tunneling Microscope
STP	Standard Temperature Pressure
STScI	Space Telescope Science Institute
SUNY	State University of New York
SURF	Summer Undergraduate Research Fellowship program
SURF-III (SURF II)	The NIST Synchrotron Ultraviolet Radiation Facility Electron Storage Ring
SUSIM	Solar Ultraviolet Spectral Irradiance Monitor
SVGL	Silicon Valley Group Lithography
SWIXR	Short Wave Infrared Transfer Radiometer
SWIR	Short Wave Infrared
SXR	SeaWiFS Transfer Radiometer

T

TAG	Technical Advisory Group
TAI	International Atomic Time
TAMOC	Theoretical Atomic, Molecular, and Optical Physics Community
TASSII	Total and Spectral Solar Irradiance Investigation
TC	Technical Committee
TCAP	Time-Correlated Associated Particle
TDCR	Triple-to-Double Coincidence Ratio
TEPC	Tissue Equivalent Proportional Counter
TEXT	Texas Experimental Tokamak
TFTC	Thin-Film Thermocouple
TFWM	transient four-wave-mixing
TGM	Toroidal-Grating Monochromator
TIMED	Thermosphere Ionosphere Mesosphere Energetics and Dynamics
TLC	Thin Layer Chromatography
TLD	Thermoluminescent Detector
TMA	Tri-methyl-aluminum
TOF	Time-of-Flight Spectrometer

TOMS	Total Ozone Mapping Spectrometer
TOP	Time-Orbiting-Potential Trap
TPB	Tetraphenyl Butadiene
TPD	Temperature Programmed Desorption
TQM	Total Quality Management
TRIGA	Training, Research and Isotope Reactor, General Atomics
TRU	Transuranic
TuFIR	Tunable Far Infrared (Radiation)
TXR	Thermal-infrared Transfer Radiometer

 **U**

UA	University of Arizona
UARS	Upper Atmosphere Research Satellite
UCN	Ultra Cold Neutron
UDC	University of the District of Columbia
UHV	Ultrahigh Vacuum
UK (U.K.)	United Kingdom
UPS	Ultraviolet Photoelectron Spectroscopy
URL	Uniform Resource Locator
US	United States
USA	United States of America
USAIDR	U.S. Army Institute of Dental Research
USCEA	U.S. Council for Energy Awareness
USDA	U.S. Department of Agriculture
USFDA	U.S. Food and Drug Administration
USGCRP	United States Global Change Research Program
USNA	U.S. Naval Academy
USNC	United States National Committee
USNO	U.S. Naval Observatory
USSR	Union of Soviet Socialist Republics
UTC	Coordinated Universal Time
UV	Ultraviolet
UV-B (UVB)	Ultraviolet-B

 **V**

VCO	Voltage-Controlled Oscillator
VCSEL	Vertical-Cavity Surface-Emitting Laser
VDG	Van de Graaff
VEEL	Vibrational and Electronic Energy Levels
VET	Vibration Energy Transfer
VIS	Visible
VLA	Very Large Array
VLBI	Very Long Baseline Interferometer (or Interferometry)
VNIIFTRI	National Scientific and Russian Research Institute for Physical, Technical and Radiotechnical Measurements
VNIIM	Mendeleyev Institute of Metrology

VNIOF	All-Union Research Institute for Optical and Physical Measurements
VR	Vibrationally Resonant
VRML	Virtual Reality Markup Language
VR-SFG	Vibrationally Resonant Sum-frequency Generation
VUV	Vacuum Ultraviolet
VXR	Visible Transfer Radiometer

W

WAFAC	Wide-Angle Free-Air Chamber
WERB	Washington Editorial Review Board
WG	Working Group
WHC	Washington Hospital Center
WHO	World Health Organization
WIPP	Waste Isolation Pilot Plant
WISE	Women in Science and Engineering
WKB	Wentzel-Kramers-Brillouin
4WM	Four Wave Mixing
WMO	World Metrological Organization
WPMA	Working Party on Measurement Activities
WSTC	Westinghouse Science and Technology Center
WWV	Call letters for NIST short-wave radio station in Colorado
WWVB	Call letters for NIST If radio station in Colorado
WWVH	Call letters for NIST short-wave radio station in Hawaii
WWW (www)	World Wide Web
WYSIWYG	What You See Is What You Get

X

XANES	X-ray Absorption Near-Edge Structure
XPS	X-ray Photoelectron Spectroscopy
XROI	X-Ray Optical Interferometer
XSW	X-ray Standing Wave
XTE/PCA	X-ray Timing Explorer/Proportional Counter Array
XUV	Extreme Ultraviolet

Y

Yael	Yankee Atomic Environmental Laboratory
YAG	Yttrium-Aluminum-Garnet
Yb:YAG	Ytterbium: Yttrium-Aluminum-Garnet (YAG doped with Yb)
YBCO	Yttrium-Barium-Cuprate

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