

## APPENDIX II: GLOSSARY OF ACRONYMS

ACI	American Competitiveness Initiative
AdvLIGO	Advanced Laser Interferometer Gravitational Wave Observatory
ALMA	Atacama Large Millimeter Array
AMISR	Advanced Modular Incoherent Scatter Radar
AMORE	Arctic Mid-Ocean Ridge Expedition
AMS	Accelerator Mass Spectrometry
AON	Arctic Observing Network
ARRV	Alaska Region Research Vessel
AST	Division of Astronomical Sciences
ASTER	Atmosphere Surface Turbulent Exchange Research
ATLAS	A Toroidal LHC ApparatuS
ATST	Advanced Technology Solar Telescope
AUI	Associated Universities, Inc.
AURA	Association of Universities for Research in Astronomy, Inc.
AUV	Autonomous Underwater Vehicle
BCA	Bio-bar-code
BEA	Bureau of Economic Analysis
BES	Baltimore Ecosystem Study LTER
BIO	Directorate for Biological Sciences
BMES	Biomimetic Microelectronic Systems
BOOMERANG	Balloon Observations of Millimetric Extragalactic Radiation and Geomagnetics
BSAC	Berkeley Sensor and Actuator Center
CAIDA	Cooperative Association for Internet Data Analysis
CASA	Collaborative Adaptive Sensing of the Atmosphere
CCF	Coupled Cyclotron Facility
CCI	Center for Chemical Innovation
CCIED	Collaborative Center for Internet Epidemiology and Defenses
CEAS	Center for Analysis and Synthesis
CEIN	Center for the Environmental Implications of Nanotechnology
CENS	Center for Embedded Networked Sensing
CERN	European Organization for Nuclear Research
CERSP	Center for Environmentally Responsible Solvents and Processes
CESR	Cornell Electron Storage Ring
CfAO	Center for Adaptive Optics
CISE	Directorate for Computer and Information Science and Engineering
CISM	Center for Integrated Space Weather Modeling
CLASS	Cross-chain Loran Atmospheric Sounding System
CluE	Cluster Exploratory
CMB	Cosmic Microwave Background
CMMAP	Center for Multi-Scale Modeling of Atmospheric Processes
CMOP	Center for Coastal Margin Observation and Prediction
CRI	CISE Computing Research Infrastructure
CMS	Compact Muon Solenoid
COSMIC	Constellation Observing System for Meteorology Ionosphere and Climate
CO <sub>2</sub>	Carbon dioxide
CRÉST	Center of Research Excellence in Science and Technology
CTD	Conductivity, Temperature and Depth
CTIO	Cerro Tololo Interamerican Observatory
CZEN	Critical Zone Exploration Network
CZO	Critical Zone Observatories
DARPA	Defense Advanced Research Projects Agency
DEB	Division of Environmental Biology
DHS	U.S. Department of Homeland Security

DLESE	Digital Library for Earth System Education
DISUN	Data Intensive Science University Network
DMS	Data Management System
DOE	U.S. Department of Energy
DOM	Digital Optical Module
ECO	Edison Chouest Offshore
EHR	Education and Human Resources
ELOKA	Exchange for Local Observations and Knowledge of the Arctic
ENG	Directorate for Engineering
EPA	U.S. Environmental Protection Agency
EPSCoR	Experimental Program to Stimulate Competitive Research
ERC	Engineering Research Center
ETS	Episodic Tremor and Slip
EVLA	Expanded Very Large Array
FFRDC	Federally Funded Research and Development Center
FY	Fiscal Year
GBT	Robert C. Byrd Green Bank Telescope
GDP	Gross Domestic Product
GEO	Directorate for Geosciences
GLC	Great Lakes Consortium for Petascale Computing
GLORIAD	Global Ring Network for Advanced Applications Development
GNET	GPS Network
GONG	Global Oscillation Network Group
GPS	Global Positioning System
GriPhyN	Grid Physics Network
GSN	Global Seismographic Network
GSS	General Social Survey
HBCU	Historically Black Colleges and Universities
HPWREN	High Performance Wireless Research and Education Network
I/UCRC	Industry/University Cooperative Research Center
IARPC	Interagency Arctic Research Policy Committee
INFN	Istituto Nazionale di Fisica Nucleare, the Italian National Institute of Nuclear Physics
IODP	Integrated Ocean Drilling Program
IPCC	Intergovernmental Panel on Climate Change
IPY	International Polar Year
IPYDIS	International Polar Year Data and Information Service
IRIS	Incorporated Research Institutions for Seismology
ISS	Integrated Sounding System
KPNO	Kitt Peak National Observatory
KREW	Kings River Experimental Watershed
LHC	Large Hadron Collider
LIGO	Laser Interferometer Gravitational-wave Observatory
LMG	R/V Laurence M. Gould
LTER	Long-Term Ecological Research
MAPO	Martin A. Pomerantz Observatory
MEMs	Micro-electromechanical system
MEXT	Ministry of Education, Culture, Sports, Science and Technology (Japan)
MPS	Directorate for Mathematical and Physical Sciences
MREFC	Major Research Equipment and Facilities Construction
MRI	Major Research Instrumentation
MRSEC	Materials Research Science and Engineering Center
NAIC	National Astronomy and Ionosphere Center
NASA	National Aeronautics and Space Administration
NBP	R/V Nathaniel B. Palmer

NBTC	Nanobiotechnology Center
NCAR	National Center for Atmospheric Research
NCEAS	National Center for Ecological Analysis and Synthesis
NCED	National Center for Earth-Surface Dynamics
NCI	National Cancer Institute
NCN	Network for Computational Nanotechnology
NCSA	National Center for Supercomputing Applications
NEES	George E. Brown, Jr. Network for Earthquake Engineering Simulation
NEON	National Ecological Observatory Network
NESCent	National Evolutionary Synthesis Center
NHMFL	National High Magnetic Field Laboratory
NICS	National Institute for Computational Sciences
NIDDK	National Institute of Diabetes and Digestive and Kidney Diseases
NIGMS	National Institute of General Medical Sciences
NINDS	National Institute of Neurological Disorders and Stroke
NLM	National Library of Medicine
NNIN	National Nanotechnology Infrastructure Network
NOAA	National Oceanic and Atmospheric Administration
NOAO	National Optical Astronomy Observatory
NORC	National Opinion Research Center
NRAO	National Radio Astronomy Observatory
NSB	National Science Board
NSCL	National Superconducting Cyclotron Laboratory
NSDL	National Science Digital Library
NSEC	Nanoscale Science and Engineering Center
NSF	National Science Foundation
NSIDC	National Snow and Ice Data Center
NSO	National Solar Observatory
NWS	National Weather Service
OCI	Office of Cyberinfrastructure
OIA	Office of Integrative Activities
OOI	Ocean Observatories Initiative
OPP	Office of Polar Programs
OSTP	Office of Science and Technology Policy
PACDEX	Pacific Dust Experiment
PAM	Portable Automated Mesonet
PASSCAL	Program for the Array Seismic Studies of the Continental Lithosphere
PBO	Plate Boundary Observatory
PDB	Protein Data Bank
PM	Photomultiplier
POLENET	Polar Earth Observatory Network
PSC	Pittsburgh Supercomputing Center
PSD	Post-traumatic stress disorder
PSID	Panel Study of Income Dynamics
PRIME	Purdue Rare Isotope Measurement
PTFE	Polytetrafluoroethylene
R&D	Research and Development
R&RA	Research and Related Activities
RASS	Radio Acoustic Sounding System
RB2C	Center for Repair of Buildings and Bridges with Composites
REU	Research Experiences for Undergraduates
RII	Research Infrastructure Improvement
RISE	Research Infrastructure for Science and Engineering
RSL	Research Support and Logistics

R/V	Research Vessel
SAFOD	San Andreas Fault Observatory at Depth
SAGE	System for Algebra and Geometry Experimentation
SAHRA	Center for Sustainability of Semi-Arid Hydrology and Riparian Areas
SBE	Directorate for Social, Behavioral and Economic Sciences
SBIR	Small Business Innovation Research
SCAR	Scientific Committee on Antarctic Research
SDSC	San Diego Supercomputer Center
SEM	Scanning Electron Microscope
SIMS	Secondary Ion Mass Spectrometry
SLC	Science of Learning Center
SODV	Scientific Ocean Drilling Vessel
SPSM	South Pole Station Modernization
SPT	South Pole Telescope
SRS	Division of Science Resources Statistics
SSSF	Surface and Sounding Systems Facility
STC	Science and Technology Center
STEM	Science, Technology, Engineering and Mathematics
STTR	Small Business Technology Transfer
SuperDARN	Super Dual Auroral Radar Network
TeraGrid	Extensible Terascale Facility
TRUST	Team for Research in Ubiquitous Secure Technology
TSIP	Telescope System Instrumentation Program
UCAR	University Corporation for Atmospheric Research
UNESCO	United Nations Education, Science and Culture Organization
UNOLS	University-National Oceanographic Laboratory System
USARC	U.S. Antarctic Resource Center
USAP	U.S. Antarctic Program
USDA	United States Department of Agriculture
USGS	United States Geological Survey
VEDA	Virtual Environment for Dynamic Atomic Force Microscopy
VLA	Very Large Array
VLBA	Very Long Baseline Array
WAIS	West Antarctic Ice Sheet
WARPnet	Wireless Open-Access Research Platform for Networks
WaterCAMPWS	Center of Advanced Materials for the Purification of Water With Systems
WIYN	Wisconsin-Indiana-Yale-NOAO telescope