

SUMMARY OF THE PHYSICS AND ASTRONOMY CLASSIFICATION SCHEME—1996 (with addendum for 1998)

The Physics and Astronomy Classification Scheme (PACS) is based on the International Classification Scheme for Physics, published by The International Council for Scientific and Technical Information (ICSTI) in 1991.

00. GENERAL

- 01. Communication, education, history, and philosophy
- 02. Mathematical methods in physics
- 03. Classical and quantum physics; mechanics and fields
- 04. General relativity and gravitation
- 05. Statistical physics and thermodynamics
- 06. Metrology, measurements, and laboratory procedures
- 07. Instruments, apparatus, components, and techniques common to several branches of physics and astronomy

10. THE PHYSICS OF ELEMENTARY PARTICLES AND FIELDS

- 11. General theory of fields and particles
- 12. Specific theories and interaction models; particle systematics
- 13. Specific reactions and phenomenology
- 14. Properties of specific particles

20. NUCLEAR PHYSICS

- 21. Nuclear structure
- 23. Radioactive decay and in-beam spectroscopy
- 24. Nuclear reactions: general
- 25. Nuclear reactions: specific reactions
- 26. Nuclear astrophysics
- 27. Properties of specific nuclei listed by mass ranges
- 28. Nuclear engineering and nuclear power studies
- 29. Experimental methods and instrumentation for elementary-particle and nuclear physics

30. ATOMIC AND MOLECULAR PHYSICS

- 31. Electronic structure of atoms, molecules, and their ions: theory
- 32. Atomic properties and interactions with photons
- 33. Molecular properties and interactions with photons
- 34. Atomic and molecular collision processes and interactions
- 36. Studies of special atoms, molecules, and their ions; clusters
- 39. Instrumentation and techniques for atomic and molecular physics

40. FUNDAMENTAL AREAS OF PHENOMENOLOGY (INCLUDING APPLICATIONS)

- 41. Electromagnetism; electron and ion optics
- 42. Optics
- 43. Acoustics
- 44. Heat transfer, thermal and thermodynamic processes
- 46. Classical mechanics
- 47. Fluid dynamics

50. PHYSICS OF GASES, PLASMAS, AND ELECTRIC DISCHARGES

- 51. Physics of gases
- 52. Physics of plasmas and electric discharges

60. CONDENSED MATTER: STRUCTURE, MECHANICAL AND THERMAL PROPERTIES

- 61. Structure of solids and liquids; crystallography
- 62. Mechanical and acoustical properties of condensed matter
- 63. Lattice dynamics
- 64. Equations of state, phase equilibria, and phase transitions
- 65. Thermal properties of condensed matter
- 66. Transport properties of condensed matter (nonelectronic)
- 67. Quantum fluids and solids; liquid and solid helium
- 68. Surfaces and interfaces; thin films and whiskers (structure and nonelectronic properties)

70. CONDENSED MATTER: ELECTRONIC STRUCTURE, ELECTRICAL, MAGNETIC, AND OPTICAL PROPERTIES

- 71. Electronic structure
- 72. Electronic transport in condensed matter
- 73. Electronic structure and electrical properties of surfaces interfaces, and thin films
- 74. Superconductivity
- 75. Magnetic properties and materials
- 76. Magnetic resonances and relaxations in condensed matter, Mössbauer effect
- 77. Dielectrics, piezoelectrics, and ferroelectrics and their properties
- 78. Optical properties, condensed-matter spectroscopy and other interactions of radiation and particles with condensed matter
- 79. Electron and ion emission by liquids and solids; impact phenomena

80. CROSS-DISCIPLINARY PHYSICS AND RELATED AREAS OF SCIENCE AND TECHNOLOGY

- 81. Materials science
- 82. Physical chemistry
- 83. Rheology
- 84. Electronics; radiowave and microwave technology; direct energy conversion and storage
- 85. Electronic and magnetic devices; microelectronics
- 87. Biological and medical physics
- 89. Other areas of research of general interest to physicists

90. GEOPHYSICS, ASTRONOMY, AND ASTROPHYSICS

- 91. Solid Earth physics
- 92. Hydrospheric and atmospheric geophysics
- 93. Geophysical observations, instrumentation, and techniques
- 94. Aeronomy and magnetospheric physics
- 95. Fundamental astronomy and astrophysics; instrumentation, techniques, and astronomical observations
- 96. Solar System
- 97. Stars
- 98. Stellar systems; interstellar medium; galactic and extragalactic objects and systems; the Universe