

Named Concepts in Physics

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NAMED THINGS IN PHYSICS TIMELINE
CONCEPTS NAMED AFTER PEOPLE

YEAR	CONCEPT
1609	Kepler's first law
1619	Kepler's third law
1621	Kepler's second law
1637	Snell's law
1665	Newton's rings
1687	Newton's laws of motion and gravitation
1690	Huygen's principle
1729	Bouguer's law
1760	Lambert's law
1780	watt unit of energy
1788	Coulomb's law
1791	Prevost theory of exchanges
1807	Young's modulus of elasticity
1809	Discovery of plane polarized light (Malus, E.L.)
1811	Malus theorem
1815	Brewster's stress birefringence
1817	Fraunhofer lines
1820	Biot-Savart law
1821	Navier-Stokes equations
1822	Ampere's law
1822	Fourier heat theorem
1825	Fresnel rhombs
1826	Ohm's law
1827	Brownian motion
1828	Hamilton operator
1828	Nicol prism
1832	Coriolis force
1832	Fresnel laws
1833	Faraday law and effect
1833	Wheatstone bridge
1834	Lenz's law
1837	Babinet principle

1840	Poiseuille's law
1841	Joule's laws
1842	Doppler effect
1845	Kirchhoff's circuit laws
1846	Faraday effect
1848	Kohlrausch current theory
1848	weber unit of magnetic flux
1850	Clausius statement of second law of thermodynamics
1852	Beer's law
1852	Stokes lines and laws of fluorescence
1854	Verdet constant
1855	Fick's laws of diffusion
1855	Lissajous figures
1856	Stokes law
1858	Kirchhoff's laws of electrolytes
1858	Kirchhoff's law of heat radiation
1858	Kohlrausch relaxation function
1859	Rijke acoustic tubes
1860	Maxwell distribution
1860	Siemens unit of conductance
1862	Foucault pendulum
1865	Maxwell's equations
1869	Massieu functions
1869	Tyndall effect
1871	Maxwell's thermodynamic equation
1871	Maxwell-Boltzmann distribution
1871	Rayleigh scattering
1875	Kerr magneto-optic effect
1877	Gauss's law
1877	Glan prism
1879	Hall effect
1880	Curie unit of radiation
1880	Kohlrausch law of independent migration of ions
1880	Lorenz-Lorentz equation
1881	Michelson-Morley experiment
1882	Helmholtz equation
1882	Kirchhoff's diffraction theory
1883	Reynold's number
1884	Poynting vector
1885	Balmer series
1887	Mach angle
1889	Pockel's effect
1889	Drude equations
1890	Rydberg formula

1891	Fermat principle of least time
1893	Mach number
1895	Curie-Weiss law
1895	Lorentz transformation
1896	Fabry-Perot interferometer
1896	Wien displacement law
1897	Larmor precession and frequency
1897	Zeeman effect
1898	Roentgen x-ray
1899	Wilson cloud chamber
1899	Concept of overvoltage (Caspari, W.A.)
1903	Thomson model of atom
1904	Langevin equation
1904	Drude equations
1905	Einstein mass-energy equation
1905	Rayleigh-Jeans law
1905	Stark effect
1907	Einstein equation for specific heat
1908	Einstein-Smoluchowski equation
1908	Geiger counter
1908	Paschen series
1908	Ritz procedure and principle
1910	Madelung series and constant
1910	Millikan oil drop experiment
1911	Geiger-Nuttall law
1911	Rutherford scattering
1911	Zeleny electroscope
1912	Debye equation for polarization
1912	Debye-Einstein law
1912	Debye T ³ law
1912	Laue equations
1912	Stark-Einstein law of photochemical equilibrium
1912	Bragg equation and angle of diffraction
1913	Bohr model of atom
1913	Bohr's laws of line spectra of gases
1913	Moseley's law
1914	Lyman series
1915	Wilson-Sommerfeld quantization rules
1916	Ehrenfest adiabatic law
1916	Sommerfeld model of atom
1917	Smoluchowski equation
1919	Lande g factor
1919	Barkhausen effect
1921	Bohr correspondence principle
1921	Ehrenfest symmetry factor
1922	Brackett series
1922	Stern-Gerlach experiment

1922	Townsend effect
1923	Auger effect
1923	Compton effect
1923	Debye-Huckel law
1923	Debye-Waller factor
1924	Richardson's law
1924	Bose-Einstein statistics
1924	Hanle effect
1924	Pfund series
1924	Pauli exclusion principle
1925	de Broglie's law
1925	Franck-Condon transition and principle
1925	Hund's rules
1925	Ising model
1925	Laporte rule for dipole radiation
1925	Russell-Saunders coupling
1925	Svedberg unit of time
1926	Fermi-Dirac distribution
1926	Schrodinger equation
1926	Wentzel-Kramers-Brillouin-Jeffreys method
1927	Born-Oppenheimer approximation
1927	Ehrenfest equation and theorem
1927	Heisenberg uncertainty principle
1927	Heitler-London treatment
1927	Wigner's rules
1928	Gamow-Condon-Gurney law
1928	Johnson noise
1928	Nyquist stability theorem
1928	Raman spectroscopy
1929	Hubble's law
1929	Morse potential
1929	Slater determinant
1930	London dispersion forces
1930	Rayleigh afterglow
1930	Slater orbital
1930	Turner-Czerny optical arrangement
1931	Casimir operator
1931	Huckel's rules
1931	van de Graaff electrostatic generator
1931	Brillouin scattering
1932	Neel temperature
1932	Wigner tunnelling correction
1933	Hellmann-Feynman theorem
1933	Koopmans theorem
1933	Meissner effect
1933	Fredericksz (Frederiks, Fredericks) effect
1934	Cherenkov effect
1934	Renner-Teller effect
1934	Szilard-Chalmers effect

1934	Zener diode
1935	London equations
1935	Richter scale
1936	Gamow-Teller selection rule
1936	Bragg-Gray equation
1937	Jahn-Teller effect
1938	BET method
1939	Schottky barrier junction
1940	Bloch-Siegert effect
1940	Pauli principle
1948	Jones effect
1948	Shannon-Jaynes maximum entropy function
1948	Casimir effect
1949	Feynman diagrams
1950	Hahn spin echoes
1950	Lowdin orthogonalization
1951	Hartree-Fock-Roothaan method
1953	Humphreys series
1953	Pariser-Parr-Pople method
1954	Carr-Purcell experiment
1955	nuclear Overhauser effect
1956	Bloch equations
1957	BCS theory of superconductivity
1958	Dirac bra-ket notation
1958	Mössbauer effect
1959	van Allen belts
1962	Hartmann-Hahn experiment
1962	Josephson effect
1964	Bell operator
1965	Cooley-Tukey algorithm
1966	Feynman ratchet and pawl
1967	Verlet algorithm in reaction dynamics

CONCEPTS NOT NAMED AFTER PEOPLE

YEAR	CONCEPT
1672	dispersion of light into colours (Newton, I.)
1800	electromotive force (Volta, A.)
1804	interference of light (Young, T.)
1819	discovery of optical activity (Biot, J.B.)
1820	action of currents on magnets (Oersted, H.C.)
1822	induced currents (Faraday, M.)
1825	rotatory polarization (Fresnel, A.)

1826	diffraction of light (Fresnel, A.)
1832	self-induction (Henry, J.)
1834	laws of electrolysis (Faraday, M.)
1838	insulation (Faraday, M.)
1838	surface charge (Faraday, M.)
1839	photovoltaic effect (Becquerel, E.)
1846	diamagnetism (Faraday, M.)
1846	rotation of light by magnetic field (Faraday, M.)
1847	conservation of energy (Helmholtz, H.)
1847	Discovery of magnetic properties of crystals (Plücker, J.)
1849	light scattering (Clausius, R.)
1849	potential difference (Kirchhoff, G.)
1849	velocity of light measurement (Fizeau, A.)
1852	discovery of fluorescence (Stokes, G.)
1859	Spectra of gases (Plücker, J./Hittorf, W.)
1859	Discovery of cathode rays (Plücker, J./Hittorf, W.)
1860	atomic spectroscopy (Kirchhoff, G.)
1870	Virial theorem (Clausius, R.J.E.)
1880	Piezoelectricity (Curie, P.; Curie, J.)
1884	Determination of e/m ratio for cathode rays deflected in magnetic field (Schuster, A.)
1888	electromagnetic radiation (Hertz, H.)
1893	operators in physical mathematics (Heaviside, O.)
1897	discovery of electron (Thomson, J.J.)
1900	disintegration of the elements (Rutherford, E.)
1900	quantum concept (Planck, M.)
1901	blackbody radiation (Planck, M.)
1903	alpha particles (Rutherford, E.)
1904	transmutation of the elements (Brooks, H.)
1905	light quanta and photon concept (Einstein, A.)
1905	photoelectric effect (Einstein, A.)
1905	special theory of relativity (Einstein, A.)
1906	absolute zero measurements (Onnes, H.K./Giauque, W.)
1911	atomic nucleus (Rutherford, E.)
1911	superconductivity at low temperatures (Onnes, H.K.)
1912	x-ray diffraction (Laue, M.)
1915	general theory of relativity (Einstein, A.)
1920	electron diffraction by crystals (Davisson, C.J./Thomson, G.P.)

1922	Aufbau principle (Bohr, N.)
1925	spin concept (Uhlenbeck, G.; Goutsmit, S.A.)
1925	synthesis of radioactive elements (Joliot-Curie, I.; Joliot, F.)
1927	quantum theory of electron (Dirac, P.)
1927	wave nature of electron (Davisson, G.J.)
1928	Ferromagnetism theory (Heisenberg, W.)
1929	discovery of parahydrogen (Harteck, P.)
1930	development of the cyclotron (Lawrence, E.)
1932	discovery of neutron (Chadwick, J.)
1932	quantum mechanical tunnelling (Wigner, E.P.)
1932	theory of electric and magnetic susceptibility (van Vleck, J.H.)
1933	Discovery of positron (Anderson, C.D.)
1934	nuclear fission (Meitner, L./Strassmann, F./Hahn, O.)
1934	synthesis of new radioactive elements using slow neutrons (Fermi, E.)
1936	concepts in condensed matter physics (Landau, L.D.)
1941	chain reacting atomic pile (Fermi, E.)
1946	nuclear magnetic resonance (Purcell, E.M./Bloch, F.)
1947	electron spin resonance (Zavoiskii, E.K.)
1949	nuclear shell model (Mayer, G.P.)
1953	Discovery of neutrino (Reines, F.)
1953	Discovery of dark matter (Zwicky, F.)
1955	discovery of antiproton (Segre, E.)
1956	Discovery of antineutron (Cork, B.; Lamberston, G.R.; Piccioni, O.; Wenzel, W.A.)
1957	discovery of cosmic ray sources (Giacconi, R.)
1957	electron microscopy (Ruska, E.)
1961	Eight-fold way (Gell-Mann, M.)
1962	non-equilibrium thermodynamics (Prigogine, I.)
1964	density functional theory (Kohn, W.)
1964	dye laser (Schaefer, F.P.)
1964	Concept of quark (Gell-Mann, M./Zweig, G.)
1965	Discovery of antideuteron (Zichichi, A.; Lederman, L.M.)
1966	discovery of non-conservation parity laws (Wu, C.)
1968	discovery of pulsars (Hewish, A./Pilkington, J.D.H.)
1969	laser spectroscopy (Bloembergen, N./Schawlow, A.L.)
1970	discovery of field particles W and Z (Rubbia, C.)
1976	Continuous wavelet transform (Zweig, G.)
1977	scaling laws (de Gennes, P.G.)
1977	Law of conservation of parity (Landau, L.D.; Lifshitz, L.D.)

1981	scanning tunnelling microscopy (STM) (Binnig, G.)
1981	Inflationary cosmology (Guth, A.)
1984	String theory (Witten, E./Green, M.B.)
1986	Quantum dot (Reed, M.A.)
1986	atomic force microscopy (Binnig, G.)
1993	Quantum teleportation (Bennett, C.H./Brassard, G./Crepeau, C./Josza, R./Peres, A./Wootters, W.K.)
1995	Concept of D(Dirichlet)-branes (Polchinski, J.)

