

Physics Nobel Laureates

YEAR	LAUREATE	COUNTRY	CONTRIBUTION
1901	Wilhelm Conard Rontgen	Germany	Discovery of X rays
1902	Hendrik Lorentz Pieter Zeeman	Netherlands Netherlands	Influence of magnetism on radiation
1903	Antoine Henri Becquerel Pierre Curie Maria Sklodowska Curie	France France Poland	Radioactivity
1904	Lord Rayleigh	UK	Discovery of Argon
1905	Philipp Anton Von Lenard	Austria	Work on Cathode Rays
1906	Joseph John Thomson	UK	Conduction of electricity through gases
1907	Albert Abraham Michelson	US	Spectroscopic investigations
1908	Gabriel Lippmann	France	Interference of light
1909	Guglielmo Marconi Karl Ferdinand Braun	Italy Germany	Development of wireless telegraphy
1910	Johannes Van der Waals	Netherlands	Equation of state for gases and liquids
1911	Wilhelm Wien	Germany	Radiation of heat
1912	Nils Gustav Dalen	Sweden	Automatic valves used in lighthouses
1913	Heike Kamerlingh Onnes	Netherlands	Properties of matter at low temperatures
1914	Max von Laue	Germany	Diffraction of X rays by crystals
1915	William Henry Bragg William Lawrence Bragg	UK Australia	Analysis of crystal structures by X rays
1916	Not Awarded		
1917	Charles Glover Barkla	UK	Development of X ray spectroscopy
1918	Max Planck	Germany	Discovery of energy quanta
1919	Johannes Stark	Germany	Splitting of spectral lines in electric fields
1920	Charles Edouard Guillaume	Switzerland	Discovery of anomalies in nickel-steel alloy
1921	Albert Einstein	Germany	Photoelectric effect and many more
1922	Niels Bohr	Denmark	Atomic structure
1923	Robert Andrews Millikan	UK	Elementary charge of electricity
1924	Manne Siegbahn	Sweden	X ray spectroscopy
1925	James Franck Gustav Hertz	Germany Germany	Impact of electron on atom
1926	Jean Baptiste Perrin	France	Discovery of sedimentation equilibrium

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1927	Arthur Holly Compton Charles Thomson Rees Wilson	US UK	Compton effect Cloud chamber
1928	Owen Willians Richardson	UK	Thermionic phenomenon
1929	Louis Victor de Broglie	France	Wave nature of electrons
1930	Chandrasekhar Venkat Raman	India	Raman effect
1931	Not Awarded		
1932	Werner Heisenberg	Germany	Quantum mechanics
1933	Erwin Schrodinger Paul Dirac	Austria UK	Discovery of new forms of atomic theory
1934	Not Awarded		
1935	James Chadwick	UK	Discovery of neutron
1936	Victor Francis Hess Carl David Anderson	Austria US	Discovery of cosmic radiation Discovery of positron
1937	Clinton Joseph Davisson George Paget Thomson	UK UK	Diffraction of electrons by crystals
1938	Enrico Fermi	Italy	Nuclear reactions
1939	Ernest Lawrence	US	Invention of cyclotron
1940	Not Awarded		
1941			
1942			
1943	Otto Stern	US	Discovery of magnetic moment of proton
1944	Isidor Isaac Rabi	US	Recording the magnetic properties of nuclei
1945	Wolfgang Pauli	Austria	Pauli's exclusion principle
1946	Percy Williams Bridgman	US	High pressure physics
1947	Edward Victor Appleton	UK	Study of physics of upper atmosphere
1948	Patrick Maynard Blackett	UK	Development of Wilson cloud chamber
1949	Hideki Yukawa	Japan	Study of nuclear forces and mesons
1950	Cecil Frank Powell	UK	Photographic method of studying nuclear processes
1951	John Douglas Cockroft Ernest Thomas Walton	UK Ireland	Transmutation of nuclei by artificially accelerated atomic particles
1952	Felix Bloch Edward Mills Purcell	Switzerland US	Nuclear magnetic precision measurements
1953	Frits Zernike	Netherlands	Invention of phase contrast microscope

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1954	Max Born Walther Bothe	Germany Germany	Statistical interpretation of wave function Study of coincidence method
1955	Willis Eugene Lamb Polykarp Kusch	US US	Fine structure of hydrogen spectrum Determination of magnetic moment of electron
1956	John Bardeen Walter Houser Brattain William Bradford Shockley	US US US	Invention of transistor
1957	Tsung Dao Lee Chen Ning Yang	US/China US/China	Investigation of parity laws
1958	Pavel Alekseyevich Cherenkov Ilya Frank Igor Yevgenyevich Tamm	USSR USSR USSR	Cherenkov effect
1959	Emilio Gino Segre Owen Chamberlain	Italy US	Discovery of antiproton
1960	Donald Arthur Glaser	US	Invention of bubble chamber
1961	Robert Hofstadter Rudolf Ludwig Mossbauer	US Germany	Structure of nucleons Resonance absorption of gamma radiation
1962	Lev Davidovich Landau	USSR	Condensed matter and liquid helium
1963	Eugene Paul Wigner Maria Geoppert Mayer H Hans D Jensen	Hungary US Germany	Theory of atomic nucleus Nuclear shell structure Nuclear shell structure
1964	Nicolay Gennadiyevich Basov Alexander Prokhorov Charles Hard Townes	USSR USSR US	Quantum electronics
1965	Richard Phillips Feynman Julian Schwinger Sin Itiro Tomonaga	US US Japan	Quantum electrodynamics
1966	Alfred Kastler	France	Optical methods of studying Hertzian resonance in atoms
1967	Hans Albrecht Bethe	US	Theory of nuclear reactions
1968	Luis Walter Alvarez	US	Elementary particle physics
1969	Murray Gell Mann	US	Classification of elementary particles
1970	Hannes Olof Gosta Alfven Louis Neel	Sweden France	Magneto hydrodynamics Anti-ferromagnetism & ferrimagnetism
1971	Dennis Gabor	Hungary	Holographic method

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1972	John Bardeen Leon Neil Cooper John Robert Schrieffer	US US US	Superconductivity (BCS theory)
1973	Leo Esaki Ivar Giaever Brian David Josephson	Japan US UK	Tunnelling in semiconductors Tunnelling in semiconductors Josephson effect
1974	Martin Ryle Antony Hewish	UK UK	Aperture synthesis technique Discovery of pulsars
1975	Aage Bohr Ben Roy Mottelson Leo James Rainwater	Denmark Denmark US	Development of theory of structure of nuclei
1976	Burton Richter Samuel Chao Chung Ting	US US	Discovery of heavy elementary particles
1977	Philip Warren Anderson Nevill Francis Mott John Hasbrouck Van Vleck	US UK US	Investigations of electronic structure of magnetic and disordered systems
1978	Pyotr Leonidovich Kapitsa Arno Allan Penzias Robert Woodrow Wilson	USSR US US	Low temperature physics Cosmic microwave background radiation
1979	Sheldon Lee Glashow Abdus Salam Steven Weinberg	US Pakistan US	Unified weak and electromagnetic interaction between elementary particles
1980	James Watson Cronin Val Logsdon Fitch	US US	Discovery of violations of fundamental symmetry principles in K meson decay
1981	Nicolaas Bloembergen Arthur Leonard Schawlow Kai Manne Borje Siegbahn	Netherlands US Sweden	Laser spectroscopy Laser spectroscopy High resolution electron spectroscopy
1982	Kenneth G Wilson	US	Critical phenomenon in phase transitions
1983	Subrahmanyan Chandrasekhar William Alfred Fowler	India US	Evolution of stars Formation of chemical elements in universe
1984	Carlo Rubbia Simon Van der Meer	Italy Netherlands	Discovery of field particles W and Z
1985	Klaus von Klitzing	Germany	Quantized Hall effect

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1986	Ernst Ruska	Germany	Design of electron microscope
	Gerd Binning	Germany	Design of scanning tunnelling microscope
	Heinrich Rohrer	Switzerland	
1987	Johannes Georg Bednorz	Germany	Superconductivity in ceramic materials
	Karl Alexander Muller	Switzerland	
1988	Leon Max Lederman	US	Double structure of leptons
	Melvin Schwartz	US	
	Jack Steinberger	US	
1989	Norman Foster Ramsey	US	Hydrogen maser and other atomic clocks
	Hans Georg Dehmelt	US	Development of ion trap technique
	Wolfgang Paul	Germany	
1990	Jerome I Friedman	US	Deep inelastic scattering of electrons and protons and bound neutrons
	Henry Way Kendall	US	
	Richard E Taylor	Canada	
1991	Pierre Gilles de Gennes	France	Studying order phenomena in liquid crystals
1992	Georges Charpak	France	Invention of Multiwire proportional chamber
1993	Russell Alan Hulse	US	Discovery of a new type of pulsar
	Joseph Hooton Taylor Jr.	US	
1994	Bertram Brockhouse	Canada	Neutron scattering techniques for studies of condensed matter
	Clifford Glenwood Shull	US	
1995	Martin Lewis Perl	US	Discovery of tau lepton
	Frederick Reines	US	Detection of neutrino
1996	David Morris Lee	US	Super fluidity in helium – 3
	Douglas D Osheroff	US	
	Robert Coleman Richardson	US	
1997	Steven Chu	US	Development of methods to cool and trap atoms with LASER
	Claude Cohen Tannoudji	France	
	William Daniel Phillips	US	
1998	Robert B Laughlin	US	Discovery of new form of quantum fluid with fractionally charged excitations
	Horst Ludwig Stormer	Germany	
	Daniel Chee Tsui	China	
1999	Gerard 't Hooft	Netherlands	Quantum structure of electroweak interactions
	Martinus J G Veltman	Netherlands	

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2000	Zhores Ivanovich Alferove Herbert Kroemer Jack St Clair Kilby	Russia Germany US	Development of semiconductor heterostructures used in optoelectronics Invention of integrated circuit
2001	Eric Allin Cornell Carl Edwin Wieman Wolfgang Ketterle	US US Germany	Achievement of Bose – Einstein condensation in dilute gases of alkali atoms
2002	Raymond Davis Jr. Masatoshi Koshiba Riccardo Giacconi	US Japan Italy	Detection of cosmic neutrinos Discovery of cosmic X ray sources
2003	Alexei Alexeyevich Abrikosov Vitaly Lazarevich Ginzburg Anthony James Leggett	Russia Russia UK	Theory of superconductors and super fluids
2004	David J Gross Hugh David Politzer Frank Wilczek	US US US	Discovery of asymptotic freedom in the theory of strong interaction
2005	Roy J Glauber John L Hall Theodor W Hansch	US US Germany	Quantum theory of optical coherence LASER based precision spectroscopy
2006	John C Mather George F Smoot	US US	Discovery of blackbody from the cosmic microwave background radiation
2007	Albert Fert Peter Grunberg	France Germany	Discovery of giant magnetoresistance
2008	Makoto Kobayashi Toshihide Maskawa Yoichiro Nambu	Japan Japan Japan	Discovery of origin of broken symmetry Discovery of mechanism of spontaneous broken symmetry in subatomic physics
2009	Charles K Kao Willard S Boyle George E Smith	UK Canada US	Transmission of light in fibers Invention of the CCD sensor
2010	Andre Geim Konstantin Novoselov	Netherlands Russia	Experiments regarding 2D material graphene
2011	Saul Perimutter Brain P Schmidt Adam G Riess	US Australia US	Discovery of accelerating expansion of the universe through observations of distant supernova

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2012	Serge Haroche David J Wineland	France US	Measurement and manipulation of individual quantum systems
2013	Francois Englert Peter Higgs	Belgium UK	Studies of origin of mass of sub atomic particles
2014	Isamu Akasaki Hiroshi Amano Shuji Nakamura	Japan Japan Japan	Invention of blue LED
2015	Takaaki Kajita Arthur B Mc Donald	Japan Canada	Discovery of neutrino oscillations
2016	David J Thouless F Duncan M Haldane John M Kosterlitz	UK UK UK	Discovery of topological phase transitions and topological phases of matter
2017	Kip Thorne Rainer Weiss Barry Barish	US Germany US	Observation of gravitational waves
2018	Arthur Ashkin Gerard Mourou Donna Stickland	US France Canada	Optical tweezers High intensity ultra-short optical pulses
2019	James Peebles Michel Mayor Didier Queloz	Canada Switzerland Switzerland	Theoretical discoveries in physical cosmology Discovery of an exoplanet orbiting a solar type star
2020	Roger Penrose Reinhard Genzel Andrea Ghez	UK Germany	Blackhole formation (general th. of relativity) Discovery of supermassive compact object at the center of our galaxy