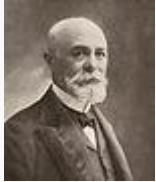


Communication, Teamwork and Collaboration Activity

Extra Materials 2: List of Nobel Laureates in Physics

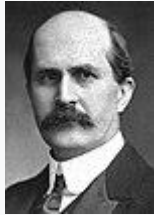
Source: https://en.wikipedia.org/wiki/List_of_Nobel_laureates_in_Physics

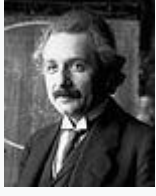
Either direct mentees to the source link, or provide them with the below information:

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
1901		Wilhelm Röntgen	 Germany	"in recognition of the extraordinary services he has rendered by the discovery of the remarkable rays subsequently named after him"	[17]
1902		Hendrik Lorentz	 Netherlands	"in recognition of the extraordinary service they rendered by their researches into the influence of magnetism upon radiation phenomena"	[18]
		Pieter Zeeman			
1903		Antoine Henri Becquerel	 France	"for his discovery of spontaneous radioactivity "	[19]
		Pierre Curie		"for their joint researches on the radiation phenomena discovered by Professor Henri Becquerel "	[19]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Marie Skłodowska-Curie	 Poland France		
1904		Lord Rayleigh	 United Kingdom	"for his investigations of the densities of the most important gases and for his discovery of argon in connection with these studies"	[20]
1905		Philipp Eduard Anton von Lenard	 Austria-Hungary Germany	"for his work on cathode rays "	[21]
1906		Joseph John Thomson	 United Kingdom	"for his theoretical and experimental investigations on the conduction of electricity by gases"	[22]
1907		Albert Abraham Michelson	 Poland United States	"for his optical precision instruments and the spectroscopic and metrological investigations carried out with their aid"	[23]
1908		Gabriel Lippmann	 France	"for his method of reproducing colours photographically based on the phenomenon of interference "	[24]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
1909		Guglielmo Marconi	 Italy	"for their contributions to the development of wireless telegraphy"	[25]
		Karl Ferdinand Braun	 Germany		
1910		Johannes Diderik van der Waals	 Netherlands	"for his work on the equation of state for gases and liquids"	[26]
1911		Wilhelm Wien	 Germany	"for his discoveries regarding the laws governing the radiation of heat"	[27]
1912		Nils Gustaf Dalén	 Sweden	"for his invention of automatic valves designed to be used in combination with gas accumulators in lighthouses and buoys"	[28]
1913		Heike Kamerlingh-Onnes	 Netherlands	"for his investigations on the properties of matter at low temperatures which led, inter alia, to the production of liquid helium"	[29]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
1914		Max von Laue	 Germany	"For his discovery of the diffraction of X-rays by crystals", an important step in the development of X-ray spectroscopy .	[30]
1915		William Henry Bragg	 United Kingdom	"'For their services in the analysis of crystal structure by means of X-rays', an important step in the development of X-ray crystallography "	[31]
		William Lawrence Bragg	 Australia  United Kingdom		
1916	Not awarded due to World War I				
1917		Charles Glover Barkla	 United Kingdom	"'For his discovery of the characteristic Röntgen radiation of the elements', another important step in the development of X-ray spectroscopy "	[8]
1918		Max Planck	 Germany	"for the services he rendered to the advancement of physics by his discovery of energy quanta "	[9]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
1919		Johannes Stark	 Weimar Republic	"for his discovery of the Doppler effect in canal rays and the splitting of spectral lines in electric fields "	[32]
1920		Charles Édouard Guillaume	 Switzerland and	"for the service he has rendered to precision measurements in physics by his discovery of anomalies in nickel-steel alloys"	[33]
1921		Albert Einstein	 Weimar Republic  Switzerland and	"for his services to theoretical physics , and especially for his discovery of the law of the photoelectric effect "	[10]
1922		Niels Bohr	 Denmark	"for his services in the investigation of the structure of atoms and of the radiation emanating from them"	[34]
1923		Robert Andrews Millikan	 United States	"for his work on the elementary charge of electricity and on the photoelectric effect "	[35]
1924		Manne Siegbahn	 Sweden	"for his discoveries and research in the field of X-ray spectroscopy "	[11]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
1925		James Franck	 Weimar Republic	"for their discovery of the laws governing the impact of an electron upon an atom"	[12]
		Gustav Hertz			
1926		Jean Baptiste Perrin	 France	"for his work on the discontinuous structure of matter, and especially for his discovery of sedimentation equilibrium "	[36]
1927		Arthur Holly Compton	 United States	"for his discovery of the effect named after him "	[37]
		Charles Thomson Rees Wilson	 United Kingdom	"for his method of making the paths of electrically charged particles visible by condensation of vapour"	[37]
1928		Owen Willans Richardson	 United Kingdom	"for his work on the thermionic phenomenon and especially for the discovery of the law named after him "	[13]

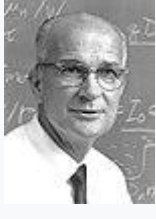
Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
1929		Louis Victor Pierre Raymond, 7th Duc de Broglie	 France	"for his discovery of the wave nature of electrons "	[38]
1930		Chandrasekha ra Venkata Raman	 India	"for his work on the scattering of light and for the discovery of the effect named after him "	[39]
1931	Not awarded				
1932		Werner Heisenberg	 Weimar Republic	"for the creation of quantum mechanics , the application of which has, inter alia, led to the discovery of the allotropic forms of hydrogen"	[14]
1933		Erwin Schrödinger	 Austria	"for the discovery of new productive forms of atomic theory "	[40]
		Paul Dirac	 United Kingdom		
1934	Not awarded				

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
1935		James Chadwick	 United Kingdom	"for the discovery of the neutron "	[41]
1936		Victor Francis Hess	 Austria	"for his discovery of cosmic radiation "	[42]
		Carl David Anderson	 United States	"for his discovery of the positron "	[42]
1937		Clinton Joseph Davison	 United States	"for their experimental discovery of the diffraction of electrons by crystals"	[43]
		George Paget Thomson	 United Kingdom		
1938		Enrico Fermi	 Italy	"for his demonstrations of the existence of new radioactive elements produced by neutron irradiation , and for his related discovery of nuclear reactions brought about by slow neutrons"	[44]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
1939		Ernest Lawrence	 United States	"for the invention and development of the cyclotron and for results obtained with it, especially with regard to artificial radioactive elements"	[45]
1940	Not awarded due to World War II				
1941	Not awarded due to World War II				
1942	Not awarded due to World War II				
1943		Otto Stern	 United States  Weimar Republic	"for his contribution to the development of the molecular ray method and his discovery of the magnetic moment of the proton "	[15][46]
1944		Isidor Isaac Rabi	 United States  Poland	"for his resonance method for recording the magnetic properties of atomic nuclei "	[47]
1945		Wolfgang Pauli	 Austria	"for the discovery of the Exclusion Principle, also called the Pauli principle "	[48]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
1946		Percy Williams Bridgman	 United States	"for the invention of an apparatus to produce extremely high pressures, and for the discoveries he made there within the field of high pressure physics "	[49]
1947		Edward Victor Appleton	 United Kingdom	"for his investigations of the physics of the upper atmosphere especially for the discovery of the so-called Appleton layer "	[50]
1948		Patrick Maynard Stuart Blackett	 United Kingdom	"for his development of the Wilson cloud chamber method, and his discoveries therewith in the fields of nuclear physics and cosmic radiation "	[51]
1949		Hideki Yukawa	 Japan	"for his prediction of the existence of mesons on the basis of theoretical work on nuclear forces "	[52]
1950		Cecil Frank Powell	 United Kingdom	"for his development of the photographic method of studying nuclear processes and his discoveries regarding mesons made with this method"	[53]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
1951		John Douglas Cockcroft	 United Kingdom	"for their pioneer work on the transmutation of atomic nuclei by artificially accelerated atomic particles"	[54]
		Ernest Thomas Sinton Walton	 Ireland		
1952		Felix Bloch	 Switzerland and  United States	"for their development of new methods for nuclear magnetic precision measurements and discoveries in connection therewith"	[55]
		Edward Mills Purcell	 United States		
1953		Frits Zernike	 Netherlands	"for his demonstration of the phase contrast method, especially for his invention of the phase contrast microscope "	[56]
1954		Max Born	 West Germany	"for his fundamental research in quantum mechanics , especially for his statistical interpretation of the wavefunction "	[57]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Walther Bothe	 West Germany	"for the coincidence method and his discoveries made therewith"	[57]
1955		Willis Eugene Lamb	 United States	"for his discoveries concerning the fine structure of the hydrogen spectrum"	[58]
		Polykarp Kusch		"for his precision determination of the magnetic moment of the electron "	[58]
1956		John Bardeen	 United States	"for their researches on semiconductors and their discovery of the transistor effect"	[59]
		Walter Houser Brattain			
		William Bradford Shockley			

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
1957		Tsung-Dao Lee	 Republic of China	"for their penetrating investigation of the so-called parity laws which has led to important discoveries regarding the elementary particles "	[60]
		Chen-Ning Yang			
1958		Pavel Alekseyevich Cherenkov	 Soviet Union	"for the discovery and the interpretation of the Cherenkov effect "	[61]
		Ilya Frank			
		Igor Yevgenyevich Tamm			
1959		Emilio Gino Segrè	 Italy  United States	"for their discovery of the antiproton "	[62]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Owen Chamberlain	 United States		
1960		Donald Arthur Glaser	 United States	"for the invention of the bubble chamber "	[63]
1961		Robert Hofstadter	 United States	"for his pioneering studies of electron scattering in atomic nuclei and for his thereby achieved discoveries concerning the structure of the nucleons "	[64]
		Rudolf Ludwig Mössbauer	 West Germany	"for his researches concerning the resonance absorption of gamma radiation and his discovery in this connection of the effect which bears his name"	[64]
1962		Lev Davidovich Landau	 Soviet Union	"for his pioneering theories for condensed matter , especially liquid helium "	[65]
1963		Eugene Paul Wigner	 Hungary  United States	"for his contributions to the theory of the atomic nucleus and the elementary particles, particularly through the discovery and application of fundamental symmetry principles "	[66]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Maria Goeppert-Mayer	 Germany  United States	"for their discoveries concerning nuclear shell structure "	[66]
		J. Hans D. Jensen	 West Germany		
1964		Nicolay Gennadiyevich Basov	 Soviet Union	"for fundamental work in the field of quantum electronics , which has led to the construction of oscillators and amplifiers based on the maser–laser principle"	[67]
		Alexander Prokhorov			
		Charles Hard Townes	 United States		
1965		Richard Phillips Feynman	 United States	"for their fundamental work in quantum electrodynamics (QED), with deep-ploughing consequences for the physics of elementary particles"	[68]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Julian Schwinger			
		Shin'ichirō Tomonaga	 Japan		
1966		Alfred Kastler	 France	"for the discovery and development of optical methods for studying Hertzian resonances in atoms"	[69]
1967		Hans Albrecht Bethe	 United States  West Germany	"for his contributions to the theory of nuclear reactions , especially his discoveries concerning the energy production in stars "	[70]
1968		Luis Walter Alvarez	 United States	"for his decisive contributions to elementary particle physics, in particular the discovery of a large number of resonance states, made possible through his development of the technique of using hydrogen bubble chamber and data analysis"	[71]
1969		Murray Gell-Mann	 United States	"for his contributions and discoveries concerning the classification of elementary particles and their interactions"	[72]

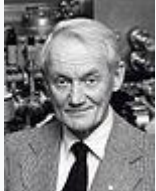
Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
1970		Hannes Olof Gösta Alfvén	 Sweden	"for fundamental work and discoveries in magneto-hydrodynamics with fruitful applications in different parts of plasma physics "	[73]
		Louis Néel	 France	"for fundamental work and discoveries concerning antiferromagnetism and ferrimagnetism which have led to important applications in solid state physics "	[73]
1971		Dennis Gabor	 Hungary  United Kingdom	"for his invention and development of the holographic method "	[74]
1972		John Bardeen	 United States	"for their jointly developed theory of superconductivity , usually called the BCS-theory "	[75]
		Leon Neil Cooper			
		John Robert Schrieffer			

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
1973		Leo Esaki	 Japan	"for their experimental discoveries regarding tunneling phenomena in semiconductors and superconductors , respectively"	[76]
		Ivar Giaever	 United States  Norway		
		Brian David Josephson	 United Kingdom	"for his theoretical predictions of the properties of a supercurrent through a tunnel barrier, in particular those phenomena which are generally known as the Josephson effect "	[76]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
1974		Martin Ryle	 United Kingdom	"for their pioneering research in radio astrophysics : Ryle for his observations and inventions, in particular of the aperture synthesis technique, and Hewish for his decisive role in the discovery of pulsars "	[77]
		Antony Hewish			
1975		Aage Bohr	 Denmark	"for the discovery of the connection between collective motion and particle motion in atomic nuclei and the development of the theory of the structure of the atomic nucleus based on this connection"	[78]
		Ben Roy Mottelson			
		Leo James Rainwater	 United States		
1976		Burton Richter	 United States	"for their pioneering work in the discovery of a heavy elementary particle of a new kind"	[79]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Samuel Chao Chung Ting			
1977		Philip Warren Anderson	 United States	"for their fundamental theoretical investigations of the electronic structure of magnetic and disordered systems"	[80]
		Nevill Francis Mott	 United Kingdom		
		John Hasbrouck Van Vleck	 United States		
1978		Pyotr Leonidovich Kapitsa	 Soviet Union	"for his basic inventions and discoveries in the area of low-temperature physics "	[81]
		Arno Allan Penzias	 United States	"for their discovery of cosmic microwave background radiation "	[81]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Robert Woodrow Wilson			
1979		Sheldon Lee Glashow	 United States	"for their contributions to the theory of the unified weak and electromagnetic interaction between elementary particles, including, inter alia, the prediction of the weak neutral current "	[82]
		Abdus Salam	 Pakistan		
		Steven Weinberg	 United States		
1980		James Watson Cronin	 United States	"for the discovery of violations of fundamental symmetry principles in the decay of neutral K-mesons "	[83]
		Val Logsdon Fitch			

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
1981		Nicolaas Bloembergen	 Netherlands  United States	"for their contribution to the development of laser spectroscopy "	[84]
		Arthur Leonard Schawlow	 United States		
		Kai Manne Börje Siegbahn	 Sweden	"for his contribution to the development of high-resolution electron spectroscopy "	[84]
1982		Kenneth G. Wilson	 United States	"for his theory for critical phenomena in connection with phase transitions "	[85]
1983		Subrahmanyan Chandrasekhar	 India  United States	"for his theoretical studies of the physical processes of importance to the structure and evolution of the stars "	[86]
		William Alfred Fowler	 United States	"for his theoretical and experimental studies of the nuclear reactions of importance in the formation of the chemical elements in the universe"	[86]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
1984		Carlo Rubbia	 Italy	"for their decisive contributions to the large project, which led to the discovery of the field particles W and Z , communicators of weak interaction "	[87]
		Simon van der Meer	 Netherlands		
1985		Klaus von Klitzing	 West Germany	"for the discovery of the quantized Hall effect "	[88]
1986		Ernst Ruska	 West Germany	"for his fundamental work in electron optics , and for the design of the first electron microscope "	[89]
		Gerd Binnig	 West Germany	"for their design of the scanning tunneling microscope "	[89]
		Heinrich Rohrer	 Switzerland		

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
1987		Johannes Georg Bednorz	 West Germany	"for their important break-through in the discovery of superconductivity in ceramic materials"	[90]
		Karl Alexander Müller	 Switzerland		
1988		Leon Max Lederman	 United States	"for the neutrino beam method and the demonstration of the doublet structure of the leptons through the discovery of the muon neutrino "	[91]
		Melvin Schwartz			
		Jack Steinberger			
1989		Norman Foster Ramsey	 United States	"for the invention of the separated oscillatory fields method and its use in the hydrogen maser and other atomic clocks"	[92]
		Hans Georg Dehmelt	 United States  West Germany	"for the development of the ion trap technique"	[92]

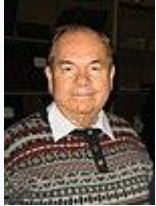
Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Wolfgang Paul	 West Germany		
1990		Jerome I. Friedman	 United States	"for their pioneering investigations concerning deep inelastic scattering of electrons on protons and bound neutrons, which have been of essential importance for the development of the quark model in particle physics"	[93]
		Henry Way Kendall			
		Richard E. Taylor	 Canada		
1991		Pierre-Gilles de Gennes	 France	"for discovering that methods developed for studying order phenomena in simple systems can be generalized to more complex forms of matter, in particular to liquid crystals and polymers "	[94]
1992		Georges Charpak	 France  Poland	"for his invention and development of particle detectors , in particular the multiwire proportional chamber "	[95]
1993		Russell Alan Hulse	 United States	"for the discovery of a new type of pulsar , a discovery that has opened up new possibilities for the study of gravitation "	[96]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Joseph Hooton Taylor Jr.			
1994		Bertram Brockhouse	 Canada	"for the development of neutron spectroscopy " and "for pioneering contributions to the development of neutron scattering techniques for studies of condensed matter "	[97]
		Clifford Glenwood Shull	 United States	"for the development of the neutron diffraction technique" and "for pioneering contributions to the development of neutron scattering techniques for studies of condensed matter "	[97]
1995		Martin Lewis Perl	 United States	"for the discovery of the tau lepton " and "for pioneering experimental contributions to lepton physics"	[98]
		Frederick Reines		"for the detection of the neutrino " and "for pioneering experimental contributions to lepton physics"	[98]
1996		David Morris Lee	 United States	"for their discovery of superfluidity in helium-3 "	[99]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Douglas D. Osheroff			
		Robert Coleman Richardson			
1997		Steven Chu	 United States	"for development of methods to cool and trap atoms with laser light."	[100]
		Claude Cohen-Tannoudji	 France		
		William Daniel Phillips	 United States		
1998		Robert B. Laughlin	 United States	"for their discovery of a new form of quantum fluid with fractionally charged excitations"	[101]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Horst Ludwig Störmer	 Germany		
		Daniel Chee Tsui	 Republic of China  United States		
1999		Gerard 't Hooft	 Netherlands	"for elucidating the quantum structure of electroweak interactions in physics"	[102]
		Martinus J. G. Veltman			
2000		Zhores Ivanovich Alferov	 Russia	"for developing semiconductor heterostructures used in high-speed- and optoelectronics "	[103]
		Herbert Kroemer	 Germany		

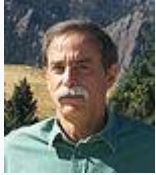
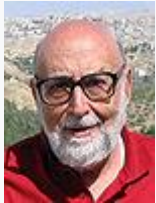
Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Jack St. Clair Kilby	 United States	"for his part in the invention of the integrated circuit "	[103]
2001		Eric Allin Cornell	 United States	"for the achievement of Bose–Einstein condensation in dilute gases of alkali atoms, and for early fundamental studies of the properties of the condensates"	[104]
		Carl Edwin Wieman			
		Wolfgang Ketterle	 Germany		
2002		Raymond Davis Jr.	 United States	"for pioneering contributions to astrophysics , in particular for the detection of cosmic neutrinos "	[105]
		Masatoshi Koshihara	 Japan		

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Riccardo Giacconi	 Italy  United States	"for pioneering contributions to astrophysics, which have led to the discovery of cosmic X-ray sources "	[105]
2003		Alexei Alexeyevich Abrikosov	 Russia  United States	"for pioneering contributions to the theory of superconductors and superfluids "	[106]
		Vitaly Lazarevich Ginzburg	 Russia		
		Anthony James Leggett	 United Kingdom  United States		
2004		David J. Gross	 United States	"for the discovery of asymptotic freedom in the theory of the strong interaction "	[107]
		Hugh David Politzer			

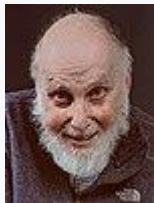
Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Frank Wilczek			
2005		Roy J. Glauber	 United States	"for his contribution to the quantum theory of optical coherence "	[108]
		John L. Hall		"for their contributions to the development of laser-based precision spectroscopy , including the optical frequency comb technique"	[108]
		Theodor W. Hänsch	 Germany		
2006		John C. Mather	 United States	"for their discovery of the blackbody form and anisotropy of the cosmic microwave background radiation "	[109]
		George F. Smoot			
2007		Albert Fert	 France	"for the discovery of giant magnetoresistance "	[110]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Peter Grünberg	 Germany		
2008		Makoto Kobayashi	 Japan	"for the discovery of the origin of the broken symmetry which predicts the existence of at least three families of quarks in nature"	[111]
		Toshihide Maskawa			
		Yoichiro Nambu	 Japan  United States	"for the discovery of the mechanism of spontaneous broken symmetry in subatomic physics"	[111]
2009		Charles K. Kao	 Hong Kong  United Kingdom  United States	"for groundbreaking achievements concerning the transmission of light in fibers for optical communication "	[112]
		Willard S. Boyle	 Canada  United States	"for the invention of an imaging semiconductor circuit – the CCD sensor "	[112]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		George E. Smith	 United States		
2010		Andre Geim	 Russia  United Kingdom  Netherlands	"for groundbreaking experiments regarding the two-dimensional material graphene "	[113]
		Konstantin Novoselov	 Russia  United Kingdom		
2011		Saul Perlmutter	 United States	"for the discovery of the accelerating expansion of the Universe through observations of distant supernovae "	[114]
		Brian P. Schmidt	 Australia  United States		

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Adam G. Riess	 United States		
2012		Serge Haroche	 France	"for ground-breaking experimental methods that enable measuring and manipulation of individual quantum systems ."	[115]
		David J. Wineland	 United States		
2013		François Englert	 Belgium	"for the theoretical discovery of a mechanism that contributes to our understanding of the origin of mass of subatomic particles, and which recently was confirmed through the discovery of the predicted fundamental particle , by the ATLAS and CMS experiments at CERN's Large Hadron Collider"	[116]
		Peter Higgs	 United Kingdom		
2014		Isamu Akasaki	 Japan	"for the invention of efficient blue light-emitting diodes which has enabled bright and energy-saving white light sources"	[117]

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Hiroshi Amano			
		Shuji Nakamura	 Japan  United States		
2015		Takaaki Kajita	 Japan	"for the discovery of neutrino oscillations , which shows that neutrinos have mass"	[118]
		Arthur B. McDonald	 Canada		
2016		David J. Thouless	 United Kingdom	"for theoretical discoveries of topological phase transitions and topological phases of matter "	[119]
		F. Duncan M. Haldane	 United Kingdom  Slovenia		

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		John M. Kosterlitz	 United Kingdom  United States ^[120]		
2017		Rainer Weiss	 Germany  United States	"for decisive contributions to the LIGO detector and the observation of gravitational waves "	[121]
		Kip Thorne	 United States		
		Barry Barish			
2018		Arthur Ashkin	 United States	"for groundbreaking inventions in the field of laser physics ", in particular "for the optical tweezers and their application to biological systems"	[122]
		Gérard Mourou	 France	"for groundbreaking inventions in the field of laser physics ", in particular "for their method of generating high-intensity, ultra-short optical pulses"	

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Donna Strickland	 Canada		
2019		James Peebles	 Canada  United States	"for theoretical discoveries in physical cosmology "	[123]
		Michel Mayor	 Switzerland and	"for the discovery of an exoplanet orbiting a solar-type star"	
		Didier Queloz			
2020		Roger Penrose	 United Kingdom	"for the discovery that black hole formation is a robust prediction of the general theory of relativity "	[124]
		Reinhard Genzel	 Germany	"for the discovery of a supermassive compact object at the centre of our galaxy "	

Year	Image	Laureate ^[A]	Country ^[B]	Rationale ^[C]	Ref
		Andrea Ghez	 United States		