

EPS-Condensed Matter Division Europhysics Prize

Recipients

- 2014 Harold Y. Hwang, Jochen Mannhart and Jean-Marc Triscone
For the discovery and investigation of electron liquids at oxide interfaces.
- 2012 Steven Bramwell, Claudio Castelnovo, Santiago Grigera, Roderich Moessner, Shivaji Sondhi and Alan Tennant
For the prediction and experimental observation of magnetic monopoles in spin ice.
- 2010 Hartmut Buhmann, Charles Kane, Eugene Mele, Laurens W. Molenkamp and Shoucheng Zhang
For the theoretical prediction and the experimental observation of the quantum spin Hall effect and topological insulators.
- 2008 Andre Geim and Kostya Novoselov
For discovering and isolating a single free-standing atomic layer of carbon (graphene) and elucidating its remarkable electronic properties.
- 2006 Antoine Georges, Gabriel Kotliar, Walter Metzner, Dieter Vollhardt
For the development and application of the dynamical mean field theory.
- 2005 David Awschalom, Tomasz Dietl, Hideo Ohno
For their work on ferromagnetic semiconductors and spintronics.
- 2004 Michel Devoret, Daniel Esteve, Johan Mooij, Yasunobu Nakamura
For the realisation and demonstration of the quantum bit concept based on superconducting circuits.
- 2003 Heino Finkelmann, Mark Warner
For the discovery of a new class of materials called liquid crystal elastomers.
- 2002 Bernard Barbara, Jonathan Friedman, Dante Gatteschi, Roberta Sessoli, Wolfgang Wernsdorfer
For the development of the field of quantum dynamics of nanomagnets, including the discovery of quantum tunnelling and interference in dynamics of magnetization.
- 2001 Sumio Iijima, Cees Dekker, Thomas W. Ebbesen, Paul L. McEuen
Discovery of multi- and single-walled carbon nanotubes and pioneering studies of their fundamental mechanical and electronic properties.
- 2000 P. Carra, G. van der Laan, G. Schütz
Pioneering work in establishing the field of magnetic x-ray dichroism.
- 1999 C. Glaliti, M. Reznikov
For developing novel techniques for noise measurements in solids leading to experimental observation of carriers with a fractional charge.



- 1998 M. T. Rice
For original contributions to the theory of strongly correlated electron systems.
- 1997 A. Fert, P. Gruenberg, S. S. P. Parkin
For the discovery and contribution to the understanding of the giant magneto-resistance effect in transition-metal multilayers and demonstrations of its potential for technological applications.
- 1996 R.H. Friend
For pioneering work on semiconducting organic polymer materials and demonstration of an organic light emitting diodes.
- 1995 Yakir Aharonov, Michael V. Berry
For the introduction of fundamental concepts in physics that have profound impact on condensed matter science.
- 1994 D.R. Huffman, W. Krätschmer, H.W. Kroto, R.E. Smalley
For new molecular forms of carbon and their production in the solid state.
- 1993 B.L. Altshuler, A.G. Aronov, D.E. Khmel'nitskii, A.I. Larkin, B. Spivak
For theoretical work on coherent phenomena in disordered conductors.
- 1992 G. Ertl, H. Ibach, J. Peter Toennies
For pioneering studies of surface structures, dynamics and reactions through the development of novel experimental methods.
- 1991 K. Bechgaard, D. Jérôme
For synthesis of a new class of organic metals and the discovery of their superconductivity and novel magnetic properties.
- 1990 R. Car, M. Parrinello
For a novel and powerful method for the ab-initio calculation of molecular dynamics.
- 1989 F. Steglich, H.-R. Ott, G.G. Lonzarich
For pioneering investigations of heavy-fermion metals.
- 1988 J.G. Bednorz, K.A. Müller
For the discovery of high-temperature superconductivity.
- 1987 I.K. Yanson
For point-contact spectroscopy in metals.
- 1986 F. Mezei
For neutron spin echo spectroscopy.
- 1985 J. Als-Nielsen, M. Pepper
For the experimental study of low dimensional physics.
- 1984 G.K. Binnig, H. Rohrer
For the scanning tunnelling microscope.
- 1983 A.F. Silvera
For atomic and solid hydrogen.

- 1982 K. von Klitzing
For experimental demonstration of the quantized Hall resistance.
- 1980 O.K. Andersen, A.R. Miedema
For original methods for the calculation of the electronic properties of materials.
- 1979 E.A. Ash, J.H. Collins, Y.V. Gulaev, K.A. Ingebrigtsen, E.G.S. Paige
For the physical principles of surface acoustic wave devices.
- 1978 Z.I. Alferov
For heterojunctions.
- 1977 W.E. Spear
For amorphous silicon devices.
- 1976 W. Helfrich
For contributions to the physics of liquid crystal.
- 1975 V.S. Bagaev, L.V. Keldysh, J.E. Pokrovsky, M. Voos
For the condensation of excitons.

