EPS Condensed Matter Division Europhysics Prize Award recipients

The EPS CMD Europhysics Prize is one of Europe’s most prestigious prizes in the field of condensed matter physics. It is awarded every 2 years in recognition of recent work by one or more individuals for scientific excellence in the area of condensed matter physics.

2016  Peter Böni, Aleksandr N. Bogdanov, Christian Pfleiderer, Achim Rosch, Ashvin Vishwanath
For the theoretical prediction, the experimental discovery and the theoretical analysis of a magnetic skyrmion phase in MnSi, a new state of matter.

2014  Harold Y. Hwang, Jochen Mannhart, 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, 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 | Paolo Carra, Gerrit van der Laan, Gisela Schütz-Gmeineder
Pioneering work in establishing the field of magnetic x-ray dichroism.

1999 | Christian Glattli, Michael Reznikov
For developing novel techniques for noise measurements in solids leading to experimental observation of carriers with a fractional charge.

1998 | T. Maurice Rice
For original contributions to the theory of strongly correlated electron systems.

1997 | Albert Fert, Peter Gruenberg, Stuart S. P. Parkin
For the discovery and contribution to the understanding of the giant magnetoresistance 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 | Donald R. Huffman, Wolfgang Krätschmer, Harold W. Kroto, Richard E. Smalley
For new molecular forms of carbon and their production in the solid state.

1993 | Boris L. Altshuler, Arkady Girshevich Aronov, David E. Khmelnitskii, Anatoly I. Larkin, Boris Spivak
For theoretical work on coherent phenomena in disordered conductors.

1992 | Gerhard Ertl, Harald Ibach, J. Peter Toennies
For pioneering studies of surface structures, dynamics and reactions through the development of novel experimental methods.

1991 | Klaus Bechgaard, Denis Jérome
For synthesis of a new class of organic metals and the discovery of their superconductivity and novel magnetic properties.

1990 | Roberto Car, Michele Parrinello
For a novel and powerful method for the ab-initio calculation of molecular dynamics

1989 | Frank Steglich, Hans-Rudi Ott, Gil G. Lonzarich
For pioneering investigations of heavy-fermion metals

1988 | J. Georg Bednorz, Karl Alex Müller
For the discovery of high-temperature superconductivity.

1987 | Igor K. Yanson
For point-contact spectroscopy in metals.

1986 | Ferenc Mezei
For neutron spin echo spectroscopy.
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<thead>
<tr>
<th>Year</th>
<th>Name(s)</th>
<th>Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>Jens Als-Nielsen, Michael Pepper</td>
<td>For the experimental study of low dimensional physics.</td>
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<tr>
<td>1984</td>
<td>Gerd K. Binnig, Heinrich Rohrer</td>
<td>For the scanning tunnelling microscope.</td>
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<tr>
<td>1983</td>
<td>A.F. Silvera</td>
<td>For atomic and solid hydrogen.</td>
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<tr>
<td>1982</td>
<td>Klaus von Klitzing</td>
<td>For experimental demonstration of the quantized Hall resistance.</td>
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<tr>
<td>1980</td>
<td>Ole Krog Andersen, Andries R. Miedema</td>
<td>For original methods for the calculation of the electronic properties of materials.</td>
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<tr>
<td>1978</td>
<td>Zhores Ivanovich Alferov</td>
<td>For heterojunctions.</td>
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<tr>
<td>1977</td>
<td>Walter Eric Spear</td>
<td>For amorphous silicon devices.</td>
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<tr>
<td>1976</td>
<td>Wolfgang Helfrich</td>
<td>For contributions to the physics of liquid crystal.</td>
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<tr>
<td>1975</td>
<td>V.S. Bagaev, Leonid Vemiaminovich Keldysh, J.E. Pokrovsky, M. Voos</td>
<td>For the condensation of excitons.</td>
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</tbody>
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