

THE IEEE COUNCIL ON SUPERCONDUCTIVITY AWARDS FOR CONTRIBUTIONS IN THE FIELD OF APPLIED SUPERCONDUCTIVITY (2010)

The IEEE Awards will be presented during the Opening Plenary Session of the Applied Superconductivity Conference starting at 8:00 AM on Monday morning, 2 August 2010.

DESCRIPTION: The Council on Superconductivity of the Institute of Electrical and Electronics Engineers (IEEE) has established two awards, approved by the IEEE, to recognize researchers, engineers and managers, who, during their professional careers, have made outstanding contributions to the field of applied superconductivity.

THE IEEE AWARD FOR CONTINUING AND SIGNIFICANT CONTRIBUTIONS IN THE FIELD OF APPLIED SUPERCONDUCTIVITY

BASIS OF JUDGING: The Award, which may be given during the Applied Superconductivity Conference, or an alternative applied superconductivity conference associated with the Council on Superconductivity, will recognize individuals for contributions in the field of applied superconductivity over a period of time (nominally more than twenty years) based on novel and innovative concepts proposed by the individual, the authorship or co-authorship of a number of publications of major significance to the field of applied superconductivity and the presentation of a number of invited and plenary talks at major national and international conferences and meetings in applied superconductivity, including the Applied Superconductivity Conference.

PRIZE: Awardees will receive, during a ceremony at an applied superconductivity conference, a plaque, an inscribed medallion and a cash award of at least 5,000 US dollars.

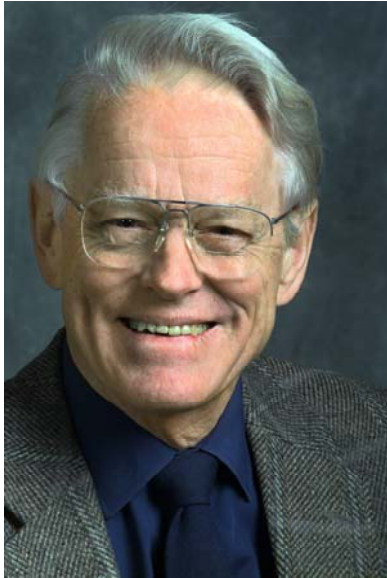
PREVIOUS RECIPIENTS:

Electronics: Dr. Fernand D. Bedard, Dr. Alex. I. Braginski, Prof. John Clarke, Prof. Hisao Hayakawa, Prof. Konstantin K. Likharev, Dr. Martin Nisenoff, Dr. Arnold H. Silver and Prof. Theodore Van Duzer.

Materials: The late Prof. Jan Evetts, Prof. Dr. René Flükiger, Prof. Dr. Herbert C. Freyhardt, Dr. Eric Gregory, Prof. David Larbalestier, Prof. John Rowell, the late Dr. Masaki Suenaga, and Prof. Kyoji Tachikawa.

Large Scale: Mr. Henri Desportes, the late Prof. Hiromi Hirabayashi, Prof. Dr. Peter Komarek, Dr. Daniel Leroy, Prof. Alfred D. McInturff, Dr. D. Bruce Montgomery, Prof. Romeo Perin, the late Mr. John Purcell, Prof. Lucio Rossi, Dr. John Z. Stekly, Dr. Martin N. Wilson and Dr. Akira Yamamoto.

**2010 Recipients of the IEEE Awards for
Contributions in the Field of Applied Superconductivity**



Prof. Paul L. Richards

University of California-Berkeley (Retired)

For significant and sustained contributions in the field of superconductor high frequency detectors and mixers, in particular:

- for pioneering the development of SIS devices as mixers and detectors of microwave and millimeter wave radiation, specifically for radio astronomy,
- for pioneering the use of superconductor transition edge bolometers and arrays of these bolometers with SQUID readout electronics which have been used for many astronomical applications, and,
- for his many contributions to the mapping of the sky at millimeter wavelengths using superconducting electronic technologies.



Prof. Archie MacRobert Campbell

University of Cambridge

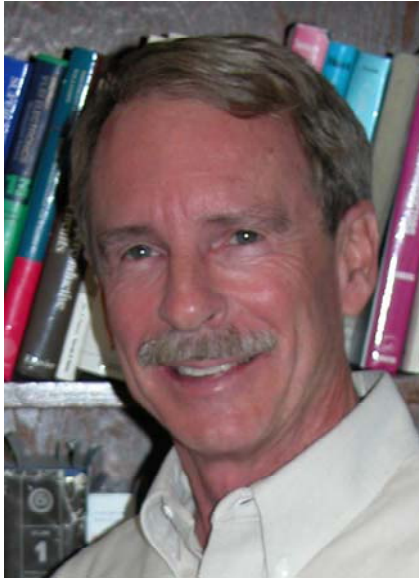
For significant and sustained contributions in the development of superconducting materials by advancing the science of both low temperature and high temperature superconducting materials, in particular:

- for making contributions to the subject of flux pinning in Type II superconductors,
- for authoring, with the late Jan Evetts, the subject-defining monograph on critical currents in superconductors, and,
- for his leadership of the Interdisciplinary Research Centre on Superconductivity at the University of Cambridge which promoted research across a wide range of superconducting science and technology.

**2010 Recipients of the IEEE Awards for
Contributions in the Field of Applied Superconductivity**

Dr. Jack W. Ekin

National Institute of Standards and Technology-Boulder



For significant and sustained contributions in the characterization of superconducting materials, in particular:

- for his pioneering work in the study of strain scaling of the pinning forces in practical superconductors,
- for his insightful postulation of a unified (strain, temperature and magnetic field) scaling law,
- for his discovery of the method of making practical low-resistivity electrical contacts to high-T_c oxide superconductors, which is now the prevailing contact method for HTS materials, and,
- for authoring the book entitled "Experimental Techniques for Low Temperature Measurements", which has become the standard reference book for electrical measurements at cryogenic temperatures.

Dr. William B. Sampson

Brookhaven National Laboratory



For significant and sustained contribution in the field of large scale applications of superconductivity, in particular:

- for designing some of the first superconducting magnets with magnetic fields exceeding 10 Tesla,
- for pioneering the development of superconducting accelerator magnets using "cosine theta" windings,
- for designing and building one of the earliest 6 Tesla wiggler magnets used in the Brookhaven National Laboratory National Synchrotron Light Source, and,
- for pioneering development of HTS magnets capable of operating in high radiation environments and for possible use in future accelerator applications.

THE IEEE MAX SWERDLOW AWARD FOR SUSTAINED SERVICE TO THE APPLIED SUPERCONDUCTIVITY COMMUNITY (2010)

DESCRIPTION: This Award recognizes sustained service to the applied superconductivity community that has had a lasting influence on the advancement of the technology either through the demonstration of exceptional service to and leadership within the community, the formulation and promotion of major programs in applied superconductivity or through leadership and management roles in major research organizations. The Award is named after the late Max Swerdlow. Starting in the 1960's and continuing for more than 20 years, he served as the Program Manager for Superconductivity at the US Air Force Office of Scientific Research (AFOSR). His office funded the majority of the programs in the US on superconducting materials and large-scale applications of superconductivity other than those funded by the Department of Energy. Max Swerdlow's dedication and perseverance in the support of these activities played a crucial role in the maturing of applied superconductivity.

ELIGIBILITY: Eligibility requirements for the Award include sustained activity in the field of applied superconductivity for a minimum of about 20 years, irrespective of the field of discipline or functions performed, to advance or promote the field of applied superconductivity. Candidates must be living, but can be retired at the time of the Award. The recipient is also expected to attend the international conference at which the Award would be presented. No individual can receive this award more than one time.

PRIZE: The Award shall consist of the following: (1) a medallion fabricated from niobium, at least six centimeters in diameter and suitably engraved; (2) a plaque suitably inscribed; and, (3) an honorarium of 5,000 US dollars.

PREVIOUS RECIPIENTS: Dr. James G. Daley, Mr. Edgar A. Edelsack, Mr. Yoshihiro Kyotani, Mr. Carl H. Rosner, Dr. David F. Sutter, Prof. Shoji Tanaka, Sir Martin Wood and Prof. Luguang Yan

2010 Recipient of the IEEE Max Swerdlow Award



Prof. Moises Levy

University of Wisconsin-Milwaukee (Retired)

For sustained service to the applied superconductivity community that has had a lasting influence on the advancement of the technology, in particular:

- for his exceptional visionary and wise leadership in the IEEE Council on Superconductivity from 1994 through 2006 to promote, enhance and recognize the practice and practitioners of this technology, and,
- for his efforts in promoting the cooperation of the IEEE with other activities and organizations in superconductivity such as the Applied Superconductivity Conference and the Magnet Technology Conference in particular.

NOMINATION PROCEDURE

Nominations of candidates for the IEEE Awards can be made by hard copy messages sent by land mail (NOT e-mail) directly to the Chair of the Award Committee containing the rationale for the nomination of the prospective Awardee and endorsed by at least ten (10) attendees of previous applied superconductivity conferences. The informal letter, which should be about one page in length, should include the prospective candidates names, address and other contact information, his/her academic background, a brief summary of his/her past and current professional affiliations and a list of the significant scientific, technological or management accomplishments relevant to the particular award for which the candidate has been proposed. The endorsements can be made either by co-signing the original nomination letter or by sending a separate letter, to which the original nomination letter is attached, with signature(s) of additional endorsers.

The nomination letter and the letters of endorsement must be received by the Chair of the Awards Committee no later than 5 PM (local time) on 28 February of the year in which an applied superconductivity conference is held. Members of the Awards Committee may also make additional nominations of candidates for the Award.

Further information on the IEEE Award in Applied Superconductivity, can be obtained online at the following URL: <http://www.ewh.ieee.org/tc/csc/awardProcess.html>, or by contacting:

Dr. Martin Nisenoff
Chair, IEEE Awards Committee
1201 Yale Place, Apt. #1004
Minneapolis, MN 55403-1958 USA
m.nisenoff@ieee.org

IEEE COUNCIL ON SUPERCONDUCTIVITY CARL H. ROSNER ENTREPRENEURSHIP AWARD (2010)

DESCRIPTION: To recognize the potential impact of superconductivity on the fields of electrical engineering, physics, medicine and energy by rewarding young entrepreneurs who have established a successful business or had the primary responsibility within a commercial organization to commercialize a device or service based on a property of superconductivity. The award will recognize young entrepreneurs while they are still growing their businesses to encourage others to follow their path. This award is named after Mr. Carl H. Rosner, whose career is an excellent example of a successful entrepreneur in the commercialization of superconductivity.

ELIGIBILITY: The Award will generally be given to an individual, independent of nationality, country of residence, race, gender, or membership in IEEE, who, in early or mid-career, started a new company or who joined an existing small business and assumed principal responsibility for the development and eventual commercialization (either in the commercial marketplace, or to the military or scientific communities) of a new and innovative superconducting product or service. This award is named after Mr. Carl H. Rosner, whose career is an excellent example of a successful entrepreneur in the commercialization of superconductivity.

PRIZE: The recipient of the IEEE Council on Superconductivity Carl H. Rosner Entrepreneurship Award will receive a suitably inscribed plaque and an honorarium of 2,500 US dollars.



Dr. Terry L. Grimm
Niowave, Inc.

For demonstrating outstanding entrepreneurship skills in the field of applied superconductivity, in particular:

- for the founding of Niowave, Inc. and the commercialization of superconducting linear accelerators and electron injectors,
- for the development of innovative superconducting niobium structures and manufacturing techniques, and,
- for transferring these technological advances to the Department of Energy and to defense, homeland security, medical and industrial applications.

Further information on the IEEE Council on Superconductivity Carl H. Rosner Entrepreneurship Award can be obtained at the following URL: <http://www.ewh.ieee.org/tc/csc/awardProcess.html> or by contacting:

Dr. Robert L. Fagaly
3121 Madera Court
Carlsbad, CA 92009-7524
fagaly@ieee.org

IEEE COUNCIL ON SUPERCONDUCTIVITY

VAN DUZER PRIZE (2008 and 2009)

The IEEE Council on Superconductivity sponsors the Van Duzer Prize, awarded to the best contributed paper published in IEEE Transactions on Applied Superconductivity during each volume year.

The award is restricted to regular submissions to the IEEE Transactions on Applied Superconductivity to encourage authors to prepare well written and comprehensive contributions which may have exceptional archival values and are likely to be cited frequently by other authors. Papers submitted for publication through scientific conference special issues are not eligible.

Candidates for the Prize may be nominated by the Editors of the Transactions and judged by the Editor in Chief. Papers are scored on the following criteria:

1. Expectation that the paper will be highly cited by future authors,
2. Technical excellence of the work described, and
3. Completeness of the paper as an archival record of a finished body of research.

The winners are announced in the year following the volume year in which the paper appears. Photos and biographies of the winners will be featured in the front of the Transactions issue containing the announcement.

The Van Duzer Prize consists of a certificate and an honorarium of \$1,000, funded by the Council on Superconductivity. For papers with multiple authors, the honorarium is divided equally among the authors.

2008 Van Duzer Prize winners are:

F. Roy and B. Dutoit

École Polytechnique Fédérale de Lausanne, Switzerland

F. Grilli

The Los Alamos National Laboratory, Los Alamos, NM, USA
Now with École Polytechnique de Montréal, Montréal, Canada

F. Sirois

École Polytechnique de Montréal, Montréal, Canada

for their paper:

"Magneto-Thermal Modeling of Second-Generation HTS for Resistive Fault Current Limiter Design Purposes"

IEEE Trans. Appl. Superconduct., vol. 18, no. 1, pages 29-35 (2008)

2009 Van Duzer Prize winners are:

S. Ryabchun

The Harvard-Smithsonian Center for Astrophysics, Cambridge, MA, USA
Now with Moscow State Pedagogical University, Moscow, Russia

C.-Y. E. Tong and R. Blundell

The Harvard-Smithsonian Center for Astrophysics, Cambridge, MA, USA

G. Gol'tsman

Moscow State Pedagogical University, Moscow, Russia

for their paper:

“Stabilization Scheme for Hot-Electron Bolometer Receivers Using Microwave Radiation”

IEEE Trans on Appl. Superconduct., vol. 19, no. 1, pages 14-19 (2009)

Award Background

The award is named in honor of Professor Theodore Van Duzer, founding Editor-in-Chief of IEEE Transactions on Applied Superconductivity. Professor Van Duzer (M'60-SM'75-F'77-LF'93) received the Ph.D. degree from the University of California, Berkeley, in 1960. He has been on the faculty of the Department of Electrical Engineering and Computer Sciences, University of California, Berkeley, since 1961. He is co-author of two textbooks, Principles of Superconductive Devices and Circuits, and Fields and Waves in Communication Electronics, and has published widely in the research literature on superconductor electronics. His current research interests focus on Josephson devices and multi-gigahertz digital superconductor circuits, including hybrids with cryogenic semiconductor components. Dr. Van Duzer is a Life Fellow of the IEEE and a member of the U.S. National Academy of Engineering.