

obituaries

To notify the community about a colleague's death, subscribers can visit <http://www.physicstoday.org/obits>, where they can submit obituaries (up to 750 words), comments, and reminiscences. Each month recently posted material will be summarized here, in print. Select online obituaries will later appear in print.

Donald Maurice Ginsberg

Donald Maurice Ginsberg, a world authority on superconductivity, passed away peacefully on 7 May 2007 at his residence in Urbana, Illinois.

Ginsberg was born 19 November 1933 in Chicago. At the University of Chicago, he received both a BA in liberal arts in 1952 and a BS in physics in 1955. He joined the department of physics at the University of Illinois at Urbana-Champaign in 1959, immediately after finishing his graduate work with Michael Tinkham at the University of California, Berkeley; the title of his thesis was "Far Infrared Transmission Through Superconducting Films."

Ginsberg's research was in superconductivity, and beginning in the late 1950s, he played a major role in almost every fundamental aspect of the field. Building on his far-IR graduate experience, he helped develop planar quasi-particle tunneling spectroscopy as a vital probe of the energy gap of metallic superconductors. Through a wide variety of measurements, including electronic transport, thermal conductivity, specific heat, and magnetic susceptibility, he contributed greatly in the 1970s to the understanding of the effects of magnetic and nonmagnetic impurities on the electronic structure of superconductors. In the 1980s he focused on the molybdenum chalcogenides, perhaps the most complex superconducting materials known at the time.

Following the discovery of cuprate superconductors in 1986, Ginsberg was quick to reorient his lab in that direction. After trying every published recipe for creating good samples, he was dissatisfied, so he finally developed his own approach. He claimed that the most important hint for the best recipe came from a chance airport encounter with a colleague. His samples of yttrium barium copper oxide were universally acknowledged at the time to be the world's finest. Because of the sensitivity of *d*-wave superconductivity to impurities, the advance in sample quality was essential for a series of fundamental



Donald Maurice Ginsberg

experiments that established several novel effects, including fluctuation effects. With a group led by one of us (Van Harlingen), Ginsberg established the *d*-wave symmetry of the superconducting state. But not only did he make careful transport and equilibrium thermodynamic measurements, he generously shared his unique crystals with colleagues at numerous institutions around the world despite the intense competition in the field.

For the past four decades, Ginsberg authored the *Encyclopaedia Britannica*'s article on superconductivity. He also wrote several influential review articles and book chapters, starting with his re-

view, with L. Charles Hebel, on nonequilibrium properties of superconductors, which was published in the seminal two-volume set *Superconductivity* (Marcel Dekker, 1969). Beginning in the late 1980s, he edited the definitive five-volume series *Physical Properties of High Temperature Superconductors* (World Scientific), to which he also contributed. In addition, he published more than 240 papers with many hundreds of coauthors from two dozen domestic and foreign institutions.

For his work on high-temperature superconductivity, Ginsberg received the 1998 Oliver E. Buckley Condensed Matter Prize of the American Physical Society, which he shared with Van Harlingen and with John Kirtley and Chang Tsuei of the IBM Thomas J. Watson Research Center. Among his other honors were a Sloan Foundation Research Fellowship and Illinois's Tau Beta Pi Daniel C. Drucker Eminent Faculty Award and University Scholars Program award.

At Illinois, Ginsberg was widely recognized for outstanding classroom teaching. Thirty-six PhD students did their research under his direction. A resourceful and clever physicist with a uniquely multifaceted personality, he was equally appreciated for his science and for his wide range of interests and his direct and often humorous way of expressing his thoughts.

Ginsberg enjoyed the cultural side of life—especially poetry, which he wrote, and music, which he indulged by playing the flute. After his retirement in 1996, he wrote several books of poetry featuring his whimsical observations of physics, physicists, and his personal life. No event was too small to be lampooned by his fiendishly dry wit and droll turn of phrase. In considering his own long career at Illinois, Ginsberg remarked simply to a colleague, "When they ask about the old days, just tell them we had a good time."

Nigel Goldenfeld

Laura Greene

Miles Klein

Dale Van Harlingen

University of Illinois at Urbana-Champaign

Thomas Lemberger

Ohio State University

Columbus

Recently posted death notices at <http://www.physicstoday.org/obits>:

Marjorie Anne Klenin

6 September 1944 – 19 January 2008

Werner K. Dahm

16 February 1917 – 17 January 2008

John McGregor Hill

21 February 1921 – 14 January 2008

Peter Staudhammer

1935 – 14 January 2008

James S. Kouvel

23 May 1926 – 4 January 2008

Irnee J. D'Haenens

3 February 1934 – 24 December 2007

John Morgan Greene

22 September 1928 – 22 October 2007

James Ricker Wilson

Computational physicist, astrophysicist, and general relativist James Ricker Wilson died on 14 August 2007 in Livermore, California, of a rare form of lymphoma.

Jim was born on 21 October 1922 in Berkeley, California. After earning a BS degree in chemistry in 1943 from the University of California, Berkeley, he immediately joined the Manhattan Project. There he did research on the properties of plutonium.

An anecdote about his first research problem highlights Jim's ability to find simple solutions to complex problems, a trait that characterized his career. When he arrived at Los Alamos, his supervisor handed him a pea-sized chunk of dull grayish metal and said, "This is the world's supply of plutonium. I'm going to lunch. Please brief me on its metallurgical properties when I get back." Jim pondered his task, then put the pellet on an anvil and smacked it with a hammer. He later reported to his supervisor that it was malleable. As he recounted later, it fortunately was very impure plutonium; otherwise, it would have pulverized and contaminated the entire building.

Jim returned to UC Berkeley in 1946 and earned a doctorate in theoretical physics, for studies in the theory of mesons, in 1952. After a year at Sandia National Laboratories in Albuquerque, New Mexico, he returned to California to join the Lawrence Livermore National Laboratory, where he worked



James Ricker Wilson

until his death. He was also an adjunct professor of physics at the University of Notre Dame from 1996 to 2007. His expertise in computational physics developed from his studies of nuclear explosions. His early work involved classified projects in the design and hydrodynamic simulation of nuclear explosions. Those projects laid the groundwork for a whole category of es-

sential tools for understanding and designing nuclear weapons. In 1968, however, he spent a sabbatical year at Cambridge University to study astrophysics. For the next 37 years, he applied much of his computational expertise to public research.

In the early 1970s, he did foundational work in the fields of numerical relativity and numerical relativistic hydrodynamics. Besides his work on supernova collapse, which led to an understanding of delayed neutrino heating mechanisms for supernova explosions, and on the neutrino-energized bubble as a site for heavy-element nucleosynthesis, he was among the first to numerically compute collapsing stars, relativistic rotating stars, and magnetized stars; relativistic jets; accreting Kerr black holes; and colliding binary black holes and neutron stars.

Both Jim's classified work and his work in astrophysics dealt with systems too complex to be fully described in any feasible computer program. Both areas of his work also involved some poorly understood facets of the underlying physics. As a result, getting meaningful answers required a person to have a barely definable quality that could be called "good taste in physics." Such good taste combines a clear grasp of the basic



American Magnetics

Superconducting Magnet systems



- ⊗ Systems available for Vertical fields up to 15T and Horizontal up to 10T.
- ⊗ MAxis™ (Multi-axis) systems available for vector fields up to 5T. Opti-Maxes™ configurations also available for Magneto-Optic studies.
- ⊗ All systems available with He₃ and He₄ inserts with the sample in vacuum or exchange gas.
- ⊗ All systems available in cryogen free version with PT or GM cryocoolers. Systems also available with He recondensing option.
- ⊗ AMI works with manufacturers of dilution fridges & SPM's to deliver turnkey solutions.

AMI also offers magnet power supplies, cryogen level instrumentation, custom nitrogen autofill systems and other accessories.

For more information, please contact: sales@americanmagnetics.com

American Magnetics Inc.
112 Flint Road, Oak Ridge, TN 37830
Tel: (865) 482-1056; Fax: (865) 482-5472
www.americanmagnetics.com

See www.pt.ims.ca/16298-40



THE WORLD'S FIRST 17 TESLA CRYOGEN-FREE MEASUREMENT SYSTEM (CFMS)



- 17 Tesla Cryogen-Free Magnet
- Integrated Variable Temperature sample space down to 1.6K
- Resistivity and Hall Effect probe with sample rotation
- AC Susceptibility probe with compensated pair of pick-up coils
- Vibrating Sample Magnetometer (VSM) to measure DC magnetic moment (optional)
- AC calorimeter to measure heat capacity (optional)
- Ultra low field with ± 1 mT resolution

... with a Cryogen-Free He-3 Insert for temperatures down to 0.3K.

5 Tesla Cryogen-Free Mini-Vibrating Sample Magnetometer (VSM)

- VSM with sensitivity of $<10^{-5}$ emu 10 seconds averaging
- 51mm room temperature bore cryogen free magnet
- VTI temperature range 1.6 – 300K with 25mm sample space
- Mini Furnace temperatures to 1000K
- Options for AC Susceptibility, Specific Heat, DC Resistivity and Thermal Transport measurements



VISIT OUR BOOTH AT:
APS Meeting #629
New Orleans (10-12 March)

DPG #2
Berlin (25-29 February)

CMMP #2/3
London (26-28 March)

USA Office
Christine Portugal
Cryogenic USA
Tel: +1 805 642 4733
Fax: +1 805 642 4733
Email: Caruna2000@aol.com

UK Head Office
Cryogenic Limited
Tel: +44 (0)20 8743 6049
Fax: +44 (0)20 8749 5315
Email: sales@cryogenic.co.uk
www.cryogenic.co.uk

See www.pt.ims.ca/16298-41

Charge Sensitive Preamplifiers

COOLFET®



Noise @ 0 pF: 670 eV FWHM (Si)
~76 electrons RMS
Noise Slope: 13 eV/pF with Low C_{iss} FET
11.5 eV/pF with high C_{iss} FET
Fast Rise Time: 2.5 ns

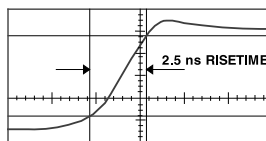
FEATURES

- Thermoelectrically Cooled FET
- 3 internal FETs to match detector
- Lowest Noise and Noise Slope
- AC or DC coupling to the detector
- Both Energy and Timing outputs
- Optional input protection
- Easy to use

STATE-OF-THE-ART

A250

External FET
FET can be cooled
Noise: <100 e⁻ RMS (Room Temp.)
<20 e⁻ RMS (Cooled FET)
Gain-Bandwidth f_t >1.5 GHz
Power: 19 mW typical
Slew rate: >475 V/ μ s

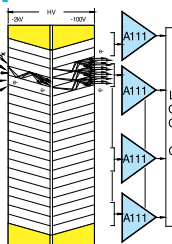


THE INDUSTRY STANDARD

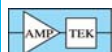
A111



A Microchannel Plate (MCP) Array Connected to Multiple A111s



Your complete source for high performance preamplifiers and amplifiers



AMPTEK INC.

Visit Us Now

14 DeAngelo Drive, Bedford, MA 01730-2204 U.S.A.

www.amptek.com

Tel: +1 781 275-2242 Fax: +1 781 275-3470 e-mail: sales@amptek.com

See www.pt.ims.ca/16298-42

processes involved and their likely interplay, a feeling for what quantities will mainly determine the process under investigation, and some intuition. Jim's success in both fields was in good measure due to his good taste in physics, together with a willingness not to be daunted by the complexity of the problems.

Jim was recognized professionally with the Marcel Grossman Award in 1994 for his work in relativistic astrophysics and with the American Physical Society's Hans A. Bethe Prize in 2007 for his nuclear astrophysics and numerical work on supernova core collapse, neutrino transport, and shock propagation. The APS recognition was particularly appropriate because Bethe was a regular visitor to Livermore and collaborated with Jim on core-collapse supernovae. The two often pored over the output of Jim's codes into the night. On one occasion, Bethe returned early the next morning and announced—correctly—that there must be an error in the computer computation, as it had not agreed with the computation he had done by hand overnight.

Mountaineering was Jim's other great passion in life. He met his wife, Demetra Corombos, while climbing in the Canadian Bugaboos in 1947. Jim was known for his mountain adventures, including annual weeklong family backpacking trips in the High Sierras in California; those trips continued a tradition established by his father in 1903. Jim made rock-climbing first ascents in the Yosemite Valley and Sequoia National Park and mountaineered in British Columbia. In 1965, as part of a six-member team, he made a month-long ascent of Hummingbird Ridge on Canada's Mount Logan, considered the hardest mountaineering route in North America; that's a feat no one has repeated. He was also the first to ski California's John Muir Trail without caches in April 1975.

Jim will be missed by all who knew him. His lively and creative mind, his uncanny physics intuition, his fierce determination, and his mischievous sense of humor were great gifts. He was a tireless collaborator, mentor, and motivator, as typified by his last phone conversation with one of us (Mathews), which ended with the same exhortation that he gave in every other conversation: "Now, get to work!"

Grant J. Mathews

University of Notre Dame
Notre Dame, Indiana

Karl Van Bibber

Michael May

Lawrence Livermore National Laboratory
Livermore, California ■

Giving Back to the Community

APS March Meeting

**WIN an iPod Touch AND
Elsevier will donate \$500
to your chosen charity**

Visit the Elsevier booth #337

Proud supporters of the
Frank Isakson Prize and the
Nicholas Metropolis Award.

For more information
www.elsevier.com/whatwedo-physics

See www.pt.ims.ca/16298-35