INDIANAPOLIS WILL BE SITE FOR MARCH MEETING OF APS

The annual program at the home of the Speedway features nearly enough sessions to be dubbed the Indy 500.

The American Physical Society will hold its March meeting in Indianapolis from 16–20 March. This year's site is the Indiana Convention Center. There will be over 450 sessions and symposiums sponsored by the divisions of condensed matter physics, materials physics, biological physics, chemical physics and polymer physics. Some 450 speakers have been invited to give papers.

One of the most popular topics will be the fullerenes, with C_{60} to be the subject of 11 sessions. High-temperature superconductivity will be the subject of 17 sessions, including an evening session on Monday at 7:30 sponsored by the committee on applications of physics. Superconductivity in fullerenes will be the topic of a Tuesday morning symposium.

There will be a memorial symposium for John Bardeen on Monday afternoon and a tribute to Frederick Seitz on Tuesday morning. Several of the speakers at the Bardeen session will contribute articles to a special issue of PHYSICS TODAY on Bardeen in April.

Among the nontechnical sessions will be one on Monday afternoon, sponsored by the APS education committee, featuring three recipients of the US Presidential Award for Excellence in Science and Math Teaching, and one session on Wednesday night, sponsored by the division of materials physics and the division of condensed matter physics, on research funding in physics.

Annual awards

The ceremonial session of APS will be held at 5:30 on Monday afternoon, at the Westin Hotel, and will be followed by a reception. At the ceremonial session 11 prizes and awards will be presented. Five of the winners will give talks at the annual prize symposium on Tuesday afternoon, and the rest will deliver their prize lectures at various times during the week.

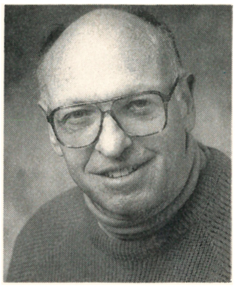
The winner of the 1992 Biological Physics Prize is Hans Frauenfelder of the University of Illinois, Urbana–Champaign. He is cited for his "pioneering studies of the kinetics of the interaction of small molecules with proteins and protein structural dynamics." Frauenfelder's early work was in subatomic physics and on the Mossbauer effect. In his later work as a biophysicist, he used myoglobin, an iron-containing pigment protein found in muscle tissue, to show that a protein has a distribution of states that are thermally accessible to it. These substates are important in the dynamics and action of biomolecules. By studying x-ray diffraction from myoglobin and other proteins, Frauenfelder found that a given atom's position in the protein varied in a way consistent with the existence of conformational substates. Using pressure-jump techniques, he and his group showed that proteins exhibit relaxation processes that are similar to those found in glasses and spin glasses.

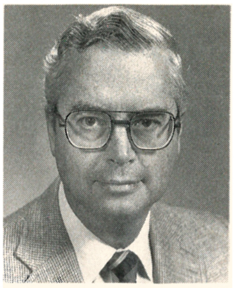
Frauenfelder received his PhD in physics from the ETH in Zurich in 1950. He joined the University of Illinois faculty in 1952. He is currently a Center for Advanced Study Professor of Physics, Chemistry and Biophysics.

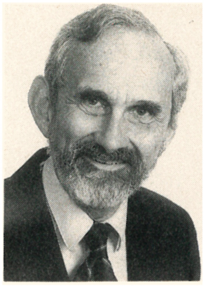
The 1992 Oliver E. Buckley Prize for work in condensed-matter physics goes to Richard A. Webb of IBM's Thomas J. Watson Research Center for his "discovery of universal conductance fluctuations and the h/e Aharonov–Bohm effect in small disordered metallic conductors, and his leadership role in elucidating the physics of mesoscopic systems." In 1984 Webb and his colleagues were able to observe reproducible conductance fluctuations in small, nonsuperconducting rings and wires. These fluctuations were later demonstrated to be due to the Aharonov–Bohm effect arising from the presence of a vector potential produced by an applied magnetic field. In 1985 Webb and his colleagues reported measurements of periodic conductance oscillations in micron-scale gold rings with a period


Hans Frauenfelder


Richard A. Webb


Philip Pincus


Paul A. Fleury


Robert F. Curl

of h/e, the normal metal flux quantum. Their work clearly demonstrated that long-range phase coherence and electron self-interference effects are properties present in all small devices at low temperatures, and it helped to open up the new field of mesoscopic physics.

The University of California, San Diego, awarded Webb his PhD in physics in 1973. After two years as a research associate at the university, he became a research physicist at Argonne National Laboratory in 1975. Since 1978 he has been at IBM, where he is currently manager of the low-temperature quantum phenomena division.

Philip Pincus of the University of California, Santa Barbara, will be awarded the 1992 High Polymer Physics Prize for his "insightful contributions to the theory of complex polymer fluids." He has investigated problems in complex fluid physics, including the nature of interactions in charged suspensions and the effect of a particle's shape on the distribution of screening charges. Pincus led an effort to measure the concentration profile for polymers near interfaces using synchrotron radiation. He has also worked on the problem of colloid stabilization by grafted or adsorbed polymers and polyelectrolytes.

Pincus earned his PhD in physics from the University of California, Berkeley, in 1961. In 1962 he went to the University of California, Los Angeles, where he was a physics professor. From 1982 to 1985 he was a scientific adviser at the Exxon Research Laboratory in Annandale, New Jersey. He joined the physics and materials departments at Santa Barbara in 1985.

For work in optical effects in solids, the Frank Isaakson Prize goes to Paul A. Fleury of Sandia National Laboratories. He is lauded for his "seminal and definitive experimental studies of light scattering by magnetic excitations in antiferromagnetic insulators, by magnon pairs in the insulating phases of oxide superconductors and by soft modes associated with structural phase transitions." Fleury has studied soft phonon modes to obtain a better understanding of the fluctuation dynamics of structural phase transitions. He has worked on light-scattering spectroscopy, specifically light scattering by spin waves, to obtain information on the magnetic properties of insulating antiferromagnets and other solids. The development of the spin-flip laser was based on the mid-1960s observations by Fleury and his coworkers of Raman scattering by spin excitations in semiconductors. He has also used his work on magnons and phonons to investigate the excitation dynamics in structural phase transitions in solids.

Fleury earned his PhD in physics in 1965 at MIT. He then joined the technical staff of AT&T Bell Laboratories, where he eventually became the director of the Physical Research Laboratory. In January he went to Sandia as vice president of research and exploratory technology.

Three researchers will share the 1992 International Prize for New Materials for their discovery of C_{60}: Harold Kroto of the University of Sussex, in England, and Robert F. Curl and Richard E. Smalley, both of Rice University.

In 1985, while Kroto was visiting at Rice, the researchers studied carbon clusters synthesized by condensation of carbon vapor, in an experiment that initially replicated work done by Andrew Kaldor and Donald Cox at Exxon Research and Engineering. Based on their extremely peculiar results, the Rice/Sussex group proposed that a new molecule, C_{60}, had been observed that has a soccer–ball-like structure. They named it buckminsterfullerene, after the architect R. Buckminster Fuller, whose geodesic dome designs provided them the clue to the structure of the molecule. The name is now often shortened to buckyball. In subsequent experiments, Wolfgang Krätschmer, Donald Huffman and coworkers isolated the fullerenes, separated them and confirmed their closed-cage structures. Fullerenes have since become a widely studied form of carbon.

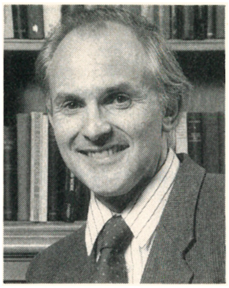
Curl earned his PhD in physical chemistry at the University of California, Berkeley, in 1957. He was then a research fellow at Harvard University for a year. Since 1958 he has been a chemistry professor at Rice, where he is currently chairman of the department.

Kroto got his chemistry PhD at the University of Sheffield, England, in 1964. He was a postdoc at the National Research Council of Canada in Ottawa for two years and then worked at AT&T Bell Labs for a year. Since 1967 he has been on the chemistry faculty of the University of Sussex, where he holds a Royal Society Research Professorship.

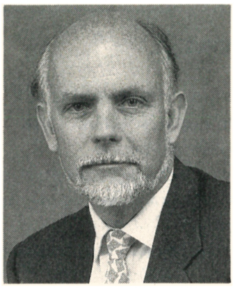
Smalley received his PhD in chemistry from Princeton University in 1973. He worked at the James Franck Institute at the University of Chicago from 1973 to 1976 before becoming a professor of physics and chemistry at Rice.

Alan G. Chynoweth of Bellcore is this year's George E. Pake Prize winner. He is recognized for his "scientific excellence and leadership in management of telecommunications research." As a research scientist early in his career, Chynoweth investigated high-field charge transport and related topics in semiconductors and dielectrics. Later he was responsible for guiding a wide range of R&D at Bell Labs in materials and devices for communications equipment, especially optical devices and fiber technology. He is currently directing communications research projects in several areas, including high-definition television, high-speed microlasers, optical networks, artificial intelligence, software engineering, hypertext information retrieval and multimedia technologies.

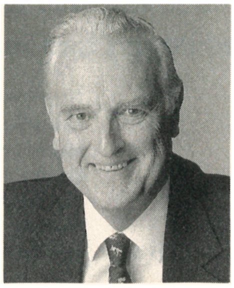
Chynoweth got his PhD in 1950 from Kings College of the University of London. He was a postdoc with the National Research Council of Canada from 1950 to 1952. He joined the technical staff of AT&T Bell Labs in 1953, where he became executive director of the electronic and photonic division in 1976. In 1984 he joined



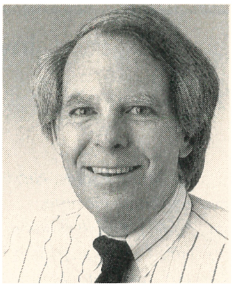
Harold Kroto



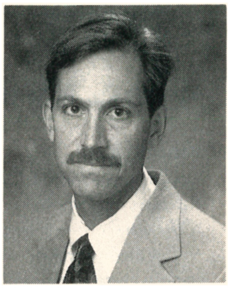
Richard E. Smalley



Alan G. Chynoweth



Carl Lineberger



Glenn H. Fredrickson

Bellcore as its vice president of applied research.

Carl Lineberger of the University of Colorado, Boulder, will receive the 1992 Earle K. Plyler Prize. His citation commends his "development of the field of negative-ion spectroscopy and his seminal contributions to the study of anion clusters and molecular radicals." Lineberger's work is primarily in the development of electron photodetachment spectroscopy, which allows detailed, accurate measurement of the electron affinities of many atomic systems. His work with lasers in molecular spectroscopy has increased knowledge of gas-phase anions. Recently he has worked on the spectroscopy and photodissociation dynamics of ions embedded in molecular clusters, which have analogs in condensed phases.

After earning his PhD in electrical engineering from the Georgia Institute of Technology in 1965, Lineberger spent three years as a research physicist at the US Army Ballistic Research Laboratory in Maryland. Since 1968 he has been at the University of Colorado, Boulder, at the Joint Institute for Laboratory Astrophysics and the department of chemistry and biochemistry. He is now the E. U. Condon Professor of Chemistry there.

Glenn H. Fredrickson of the University of California, Santa Barbara, is this year's recipient of the John H. Dillon Medal for work by a young polymer physicist. He is recognized for his "outstanding contributions to the theory of phase transitions, structures and dynamics of polymers, most notably block copolymers." Fredrickson developed a theoretical description of electronic excitation transport in polymeric systems and has described the structural relaxation of glassy materials using kinetic models. He has also developed theories of the thermodynamics and structure of block copolymers and predictions of the effect of a surface on the compositional ordering of copolymer melts.

Fredrickson earned a PhD in chemical engineering at Stanford University in 1984. He then joined the technical staff at AT&T Bell Labs. Since 1990 he has been at the University of California, Santa Barbara, where he is a professor of chemical engineering and the director of the university's Macromolecular Science and Engineering Center.

Robert A. Street of the Xerox Palo Alto Research Center will receive the 1992 David Adler Lectureship Award, which recognizes contributions to materials physics. Street's citation notes his "outstanding contributions to the materials physics and technology of amorphous semiconductors. In particular, his experimental discoveries and theoretical models of defect and dopant interactions in hydrogenated amorphous silicon have been crucial in advancing the field." Street developed a model in 1982 for impurity doping in hydrogenated amorphous silicon, demonstrating that the active dopants are the result of a thermodynamic equilibrium reaction. He subsequently investigated the effects of hydrogen diffusion on metastable defects in amorphous silicon. His work has led to the application of thin films of this material in novel devices.

In 1971 Street received his PhD in physics from Cambridge University. After a postdoctoral position at the University of Sheffield, he went to the Max Planck Institute for Solid-State Physics in Stuttgart, Germany, in 1974. He has worked at Xerox PARC since 1976, and he is currently manager of the advanced amorphous materials program in the electronic materials laboratory there.

The 1992 Maria Goeppert-Mayer Award for achievement by a woman physicist early in her career will go to Barbara H. Cooper of Cornell University. Her citation recognizes her "innovative studies of ion–surface interactions in the hyperthermal energy range." Cooper developed an ultrahigh-vacuum apparatus for hyperthermal ion–surface scattering experiments, which use low-energy ion beams to study the interaction of slow atoms and molecules with surfaces. She has studied energy- and charge-transfer mechanisms in ion–surface collisions, particularly for incident alkali species. She has recently started scanning-tunneling microscopy studies of the stability and mass flow associated with small structures on metal surfaces.

Cooper received her PhD in physics from Caltech in 1982, and then spent a year as a postdoc and teaching assistant there. In 1983 she went to Cornell, where she is an associate professor of physics.

The 1992 Award to a Faculty Member for Research in an Undergraduate Institution goes to Joseph Trivisonno Jr of John Carroll University in University Heights, Ohio. He is cited for his "outstanding research using high-frequency phonons to probe the electronic and elastic properties of solids, and for his enthusiastic and supportive involvement of John Carroll University undergraduates in this research." Trivisonno was able to distinguish between free electrons and charge-density-wave ground states by measuring the elastic and electronic properties of alkali metals using ultrasonic waves. He has used this same technique for other studies of alkali metals, other metals and high-temperature superconductors.

Trivisonno earned a physics PhD at the Case Institute of Technology in 1961. Soon after that, he became a physics faculty member at John Carroll University. He was chair of the department from 1979 to 1989.

Special services

The American Institute of Physics will run a trade show during the meeting, with almost 120 companies expected to exhibit their products. The show will be held on the first floor of Hall C of the convention center, and it will be open Tuesday from noon to 6 pm, Wednesday from 10 am to 5 pm and Thursday from 10 am to 3 pm. AIP will also operate a job placement center, which will be in the Westin Hotel across the street from the convention center. Its hours will be 9 am to 5 pm on Monday through Wednesday, and Thursday from 9 am to 3 pm. Finally, AIP will run a press room at the Westin Hotel on Monday through Wednesday from 8 am to 5 pm and Thursday from 8 am to noon.

Invited Papers and Sessions

MONDAY, 16 MARCH

morning

Doped and undoped fullerenes. *Curl, Kroto, Fischer, Hebard*
Parabolic quantum wells. *Karrai, Sumdaram, Dempsey*
Molecular/polymeric magnetism. *Epstein, Kinoshita, Kahn, Glarum*
Vortex physics, stability and turbulence I. *Schwarz, Libchaber, Lathrop, Weiss*
Surface phase transitions. *Gibbs, Noh, Tokumoto, Evans-Lutterodt*
Heavy electron superconductivity. *Kleiman*
Vortex glass, melting: Theory. *Young*
Mesoscopic systems: Quantum dots I. *Buttiker*
Laser ablation I: Diagnosis and mechanisms. *Dubowski*
Materials theory I. *Northrup*
Magnetic films I: Amorphous and granular films. *Harris*
High pressure I: Hydrogen. *Ashcroft*
Fracture I: Failure modes. *Thouless*
Atomic structure of interfaces I: Silicide/silicon interfaces. *Howe, Im*
Polymer blends. *Vanderhart*
Frustration. *Kallin, Ramirez, Ziman*
Two-dimensional quantum antiferromagnetism. *Makivic, Wang*
Scanning-tunneling and probe microscopy. *Lagally, Eigler, Hallen, Kreuzer*
Physics and applications of high-resolution optical spectroscopy of solids. *Mitsunaga, Arnold, Moerner, Littau*
Diffusion and growth of atomic structures. *Metiu, Tringides, Golovchenko, Comsa*
Surface chemistry. *Klug*
Semiconductor surfaces: Structure of flat and vicinal surfaces. *Pehlke*
Amorphous silicon I. *Tauc*
C_{60} I: Dynamics I. *Heiney*
Materials theory II. *Herman*
Impurities and defects in semiconductors I: Hydrogen in Si. *Street*
Magnetic films II: Spin-polarized, neutron and photoemission studies of magnetic films. *Izerda*
Fracture II: Brittle-to-ductile transitions. *Freund*
Crystalline polymers. *Gardner*

afternoon

John Bardeen memorial symposium. *Herring, Schrieffer, Holonyak, Pake, Pines*
Use of nmr to study porous media. *Kleinberg, Packer, Mitra, Halperin, Dybowski*
Interactions of ultrashort-pulse lasers with solids. *Kmetec, Murnane, Fann, Elsayed-Ali, Haight*
Phase separation. *Gaulin, Wiltzius, Goldburg, Palffy-Muhoray*
X-ray magnetic circular dichroism. *Chen, Kuiper*
HTSC: Chiral fluctuations and anyons; theory and experiments. *Shastry*
Semiconductors: Electronic structure and thermodynamics. *Kahn*
C_{60} II: Optical properties. *Eklund*
Materials theory III. *Pandey*
Impurities and defects in semiconductors II: Passivation and shallow impurities in III–V semiconductors. *Stavola*
Magnetic films III: Exchange coupling and magnetotransport I. *Pierce*
Polymer morphology. *Wittmann*
Advice to President Bush from Presidential awardees. *Tripp, Eisenkraft, Nelson*

evening

High-T_c superconductors. *Char, Kawasaki, Koch*

TUESDAY, 17 MARCH

morning

Superconductivity in fullerenes. *Holczer, Duclos, Schirber*
Vortex physics, stability and turbulence II. *Zabusky, Ting, Liu, Camassa*
Two-channel Kondo effect. *Cox, Seaman, Andraka, Ludwig, Liu*
STM and AFM in chemical physics I. *Rabe, Hamers, Avouris, Lieber*
Liquid crystals. *Huang, Sorenson, Li, Kumar, Pindak*
Wigner crystal at high magnetic field. *Li*
HTSC: Magnetic properties, nmr, ESR. *MacLaughlin*
Organic conductors and superconductors II: Mostly (ET). *Wosnitza*
Laser ablation II: Superconductors. *Lynds*
Materials theory IV. *de Fontaine*
Magnetic films IV: Exchange coupling and magnetotransport II. *Hathaway*
High pressure IV: Optical properties. *Slutsky*
Phase transformations I. *Martin*
1992 High-Polymer Physics Prize symposium. *Pincus, Grest, Auvray, Halperin*
Advances in SQUIDS. *DiIorio, Ketchen*
Fullerenes. *Copley, Tycko, Shen, Martins*
Transport in surface superlattices. *Weiss, Ensslin, Kirczenow*
Surface dynamics: 1992 Maria Goeppert-Mayer Award. *Cooper, Rotermund, Tromp*
Dynamics in confined systems I. *Orbach, Fayer, Mukamel, Lindenberg*
Early years of the modern theory of solids: A tribute to Frederick Seitz. *Peierls, Seitz, Hoddeson, Anderson*
Localization in the classical limit. *Adams*
Quantum Monte Carlo simulation. *Phillpot*
Materials theory V. *Gillan*
Impurities and defects in semiconductors IV: Wide-gap compound semiconductors. *Olego*
Magnetic films V: Transition metal multilayers I. *Johnson*
High pressure V: Mostly SiO_2. *Chelikowsky*
Phase transformations II. *Stephenson*
Hydrogen in metals I. *Bowman*
Block copolymers: Surfaces, films and morphology. *Coulon*

afternoon

Engineered band offsets. *Franciosi, Baroni*
1992 American Physical Society prize symposium. *Webb, Fleury, Chynoweth, Lineberger, Trivisonno*
Frontiers in physical metrology. *Schooley, Moldover, Teague, Ekin*
Synchrotron radiation. *Schlachter, Archie, Onellion, Shenoy*
Dynamics in confined systems II. *Sander, Sapoval, Klafter, Kopelman*
Photonic bandstructure: Localization and defects. *Yablonovitch, Rappe, Lawandy*
Semiconductor surfaces: Kinetics and structure of molecular and Ge adsorption. *Yu*
HTSC thin films: Properties. *Feenstra*
Mesoscopic systems: One-dimensional systems III and fabrication. *Bergmann*
Liquid crystals: Phases and transitions. *Yurke*
Fluid helium at interfaces. *Greywall*
C_{60} III: Electron structure I. *Saito*
Materials theory VI. *Wu*
Magnetic films VI: Ultrathin epitaxial magnetic overlayers. *Himpsel*
High pressure VI: Shock compression. *Dick*
Phase transformations III. *Petry*
Hydrogen in metals II. *Papaconstantopoulos*
Dillon Medal symposium on copolymers: Theory and experiment. *Fredrickson*
New directions in the graduate solid-state physics course. *Mermin, Salamon, Marder*

evening

Mixed phase semiconductor–metal systems. *Warren, Liliental-Weber, Fathauer*
High-T_c electrodynamics. *Clem, Sridhar, Anlage, Nuss*
Molecular dynamics. *Kleinman, Wang, Sankey*

WEDNESDAY, 18 MARCH

morning

Superconductor–insulator transition. *Girvin, Paalanen, Goldman*
STM and AFM in chemical physics II. *Wolkow, Landman, Mate, Weaver*
1992 Biological Physics Prize symposium. *Frauenfelder, Vanderkooi, Eaton, Wolynes, Austin*
Spectroscopy of nanostructures. *Goni, Meurer, Lorre, Ge, Miller*
Edge states in FQHE. *Goldman, Johnson, Haldane*
C_{60} IV: Doped phases. *Murphy*
Materials theory VII. *Boyer*

High pressure VII: Fullerenes and shock compression. *Yoo*
Phase transformations IV. *Clapp*
Electronic polymers I: Photoactivity. *Tokura*
Theory of layered superlattices. *Klemm, Bulaevskii*
Slow relaxation. *Chamberlin, Dahlberg, Kenning, Hetzel*
Dynamics at surfaces: Electronic processes. *Sibener, Cowin, Tully, Heinz*
Particle induced x-ray emission and proton micropole spectroscopy in materials analysis. *Campbell, Nelson, Rees, Fleming*
Charging effects in nanostructures. *Meirs, Ashoori, Kouwenhoven, Kumar*
Vortex dynamics in superconductors. *Blatter, Vinokur, Civale, Maley*
HTSC: Local atomic structure. *Rabe*
Phase transitions: Melting and other. *Schick*
Impurities and defects in semiconductors VII: Processing-related diffusion and defects in Si. *Rubloff*
High pressure VIII: Superconductivity and magnetism. *Sparn*
Phase transformation V. *Dawson*
Shear-induced order and disorder in complex fluids I. *Bruinsma, Dixon, Safinya, Ackerson*
Electronic polymers II: NLO. *Stegeman*

afternoon
Photoacoustic and photothermal instrumentation and measurement. *Thomas, Bialkowski, Chen, McClelland*
Explaining physics to the masses. *Schewe, Siegfried, Peterson, Maran*
Computational biological physics. *Scott, Swendsen, Schulten, Salpeter, Jakobsson*
Optical properties of high-temperature superconductors. *Cardona, Sooryakumar, Timusk, Slakey, Zawadowski*
Coherent transport in 2-D electron gases. *Sivan, Davies, Gramila*
Heat capacity and thermal conductivity. *Uher*
Electronic polymers III: Optics. *Salaneck*
Ring torsional Peierls systems. *Bredas, Leng*

evening
Research funding in physics. *Schwartz, Happer*

THURSDAY, 19 MARCH

morning
Theory of doped fullerenes. *Chakravarty, Rice, Schulter*
Strongly correlated electron systems. *Kalos, Fahy, Hess, Dagotto*
Macroscopic quantum tunneling. *Leggett, Zimmerman, Lukens*
Science to shape the future of America. *Iafrate, MacDonald, Townes, McGill*
Dynamics at surfaces: Diffusion. *Doren, Shen, Feibelman, Feenstra*
Integer quantum Hall: Mostly experiment. *Heitmann*
Laser ablation IV: Thin films. *Pompe*
HTSC grain boundary devices. *Buhrman*
Luminescence from indirect semiconductors, quantum confinement and porous Si I. *Vial*
STM for the fabrication of nanostructures I: Nanolithography. *Smith*
Electronic polymers IV: Transport. *Scott*
Shear-induced order and disorder in complex fluids II. *Robbins, Israelachvili, Bates*
Electrorheological fluids. *Tao, Halsey*
Granular assemblies. *Nagel, Thompson*
Fermi surface probes in HTSC. *Harshman, West, Tobin, Dessau, Smith*
Motional defects in semiconductors. *Joannopoulos, Skowronski, Wolk, Watkins*
Geometric phase. *Loss, Stern, Ihm, Kepler*
Tunneling in condensed-matter systems. *Zilm, Voth, Trommsdorff, Makri*
States of condensed matter based on biological lipids. *Nagle, Gruner, Clark, Dutta, Caffrey*
Optical applications. *DePuydt*
Thermopower, fluctuations and Hall effect. *Cohn*
HTSC: Electronic/crystal structure. *Axe*
HTSC SNS devices. *Kupriyanov*
STM for the fabrication of nanostructures II: Fundamentals and characterization. *Stroscio*
Electronic polymers V: Theory. *Mizes*
Adhesion and fracture of polymers. *Chaudhury*

afternoon
Vortex fluctuations in HTSC. *Minnhagen, Huse, Farrell*
Metal surface reconstruction. *Behm, Mochrie, Ho, Narasimhan*
Tunneling and hopping via localized states. *Popovic, Xu, Nebel, Schiff*
Role of the national laboratories in fostering competitiveness. *McGaffigan, Bearce, Arvizu, Marczewski, Treglio*
Structural properties of amorphous materials. *Williams, Binggeli, Sales*
Metal surfaces: Photoemission and auger decay. *Wertheim*
Transient and nonlinear optical phenomena. *Putterman*
Mesoscopic systems: Quantum transport. *DiVincenzo*
C_{60} VIII: Electron structure II. *Weaver*
Epitaxial structures I. *Ploog*
HTSC: SIS Tunneling. *Greene*
Luminescence from indirect semiconductors, quantum confinement and porous Si II. *Hamilton*
Impurities, defects and radiation effects in insulators I: Oxides. *DeShazer*
Electronic polymers VI: Structure. *Pouget*
Gels and network polymers. *Tanaka*
High-T_c charge dynamics. *Cooper, Rotter*
Conductance fluctuations in magnetic systems. *de Vegvar, Hershfield*

evening
Computer simulation in condensed-matter physics. *Abraham, Banavar, Chhabra, Landau*

FRIDAY, 20 MARCH

morning
Resonant tunnel diodes. *Mendez, Zaslavsky*
Spin dynamics in HTSC I. *Hayden, Keimer, Endoh*
Giant magnetoresistance. *Levy, Speriosu, Schuller, Pratt Jr*
Optical properties of conjugated polymers. *Swanson, Yang, Kanner, Dixit*
Biomolecular materials for device applications. *Rayfield, Wickman, Wybourne, Jahnig, Boxer*
Semiconductor surfaces: Microscopy. *Silcox*
Quantum wells: Excitons, magnetoexcitions. *Stark*
Mesoscopic systems: Conductance I. *Santhanam*
Epitaxial structures II. *Meyerson*
Luminescence from indirect semiconductors, quantum confinement and porous Si III. *Brus*
Impurities, defects and radiation effects in insulators II: Nonoxides. *Luty*
Polymers at surfaces. *Lennox*
Coupled quantum wells. *Chen, Brey, He*
Energy gaps in high-T_c superconductors. *Guntherodt, Abrikosov*
Proximity effect. *Kwong, Wells*
Spin dynamics in HTSC II. *Walstedt, Barrett, Bulut, Rossat-Mignod, Tranquada*
X-ray optics. *Spiller, Slaughter, Savage, Stearns*
Physics of fracture. *Needleman, Sieradzki, McMeeking*
Si–Ge heterostructures. *Fitzgerald, Jesson, Karunasiri*
Fluctuations in CDW and turbulence. *Sherwin*
Magnetic and electronic properties of metal surfaces and ultrathin films. *Baberschke*
HTSC: Band structure. *Andersen*
HTSC: 2-D properties. *Bruynseraede*
Epitaxial structures III. *Harbison*
Luminescence from indirect semiconductors, quantum confinement and porous Si IV. *Kimerling*
Impurities, defects and radiation effects in insulators III: Thin film and bulk. *McFeely*
Polymer diffusion. *Lodge*
Field effects in superconductors. *Fiory, Xi, Mannhart*
Delta doping. *Schubert, Masselink*
Josephson junction arrays. *Wiesenfeld, Benz, van der Zant, Octavio, Jose*
Dirty bosons. *Giamarchi, Trivedi, Scalettar, Weichman*
Dynamics of spin-density waves. *Gruner, Maki, Jerome*
Helium on weak binding surfaces. *Cole, Saam, Nacher, Mochel*
Fundamental materials problems and challenges in biomimetics. *Sarikaya, Frankel, Glimcher, Gosline, Aksay*
C_{60} XI: Formation and modification of fullerenes. *Wudl*
Epitaxial structures IV. *Hellman*
Impurities, defects and radiation effects in insulators IV. *Bulk*