



Notre Dame

R E P O R T

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Boeing Supports Hessert Center

The University has received a \$350,000 gift from the Boeing Company to support the Hessert Center for Aerospace Research. The gift will be used to purchase a variety of technical equipment including laser-based measurement and visualization systems, high speed computers, a hydrodynamics facility and instrumentation for acoustic and multi-phase flow measurements.

The Hessert Center houses aerodynamics, dynamics and structures, vehicle design, flight simulation, particle dynamics and anechoic laboratories in which aerospace, automotive and environmental research is conducted.

Undergraduate Tuition and Fees Increase 7.5 Percent

Undergraduate tuition and fees at the University will increase \$1,160 to \$15,810 for the 1993-94 academic year.

The overall cost increase for a residential undergraduate student will total 7.5 percent, down from last year's 8-percent increase. This year's tuition increase amounts to 7.9 percent, while room and board charges for 1993-94 will average \$4,020, a 6-percent increase.

Tuition for the Graduate School in 1993-94 will be \$15,690, and tuition in the Law School and Master's of Business Administration program will be \$16,400.

Notre Dame Selected to Templeton Honor Roll

For the fifth consecutive year, Notre Dame has been selected to the John Templeton Foundation Honor Roll for Character Building Colleges.

Notre Dame was among 111 colleges and universities named to the 1993 honor roll, an annual listing of schools that best "encourage the development of strong moral character among students." More than 900 schools were nominated for the honor roll by presidents and development directors at four-year colleges and universities throughout the United States.

Nine schools from Indiana were selected to the 1993 honor roll, the most from any state. Joining Notre Dame are Bethel, Goshen, Earlham, Franklin and Huntington Colleges, and Anderson, DePauw and Taylor Universities.

Alumni Association Announces Awards for Outstanding Service

The Notre Dame Alumni Association has announced three awards for outstanding service by graduates. The William D. Reynolds Award for service to youth has been given to George A. Scheuer, a 1928 graduate from South Bend, Ind., who earned a master's degree from Notre Dame in 1975. The James E. Armstrong Award will be given to Richard W. Conklin, associate vice president of University Relations, who received a master's degree from the University in 1959. The Rev. Edward Frederick Sorin Award will be presented to Robert Lonergan, a 1943 alumnus from El Cajon, Calif.

The William D. Reynolds Award honors a graduate whose service to young people improves their quality of life. Scheuer is known throughout northern Indiana and southern Michigan for his work with the Boy Scouts of America, Michigan Watershed and the St. Joseph River Walk programs, as well as his service to the Council of Catholic Men. While earning his bachelor's degree in journalism, Scheuer worked for Ave Maria Press. Later he earned a master's degree in communication arts and taught at Indiana University in South Bend.

The James E. Armstrong award will be given to Richard W. Conklin for distinguished service to the University. Having assumed his current position after more than two decades as director of media relations, he edits the "President's Newsletter" and helps direct Notre Dame's programming on cable and public television and its licensing and marketing activities. Conklin holds a bachelor's degree in English and psychology from the College of St. Thomas in St. Paul, Minn., and earned his master's degree in American studies from Notre Dame.

Robert F. Lonergan will receive the Rev. Edward Frederick Sorin Award for outstanding service in the spirit of Notre Dame's founder. Lonergan, a vocational rehabilitation specialist, earned a bachelor of science degree from Notre Dame in 1943 and completed a graduate program in educational counseling from the University of California at Los Angeles. His record of service to community is extensive: He has worked for Mother Teresa and Friends of the Poor, has provided career guidance and job placement assistance to refugees, and has taught English.

Faculty Notes

Appointments

Rt. Rev. Dr. George Carey, the Anglican Archbishop of Canterbury, will be a visiting member on the theology faculty this summer. Archbishop Carey, the spiritual leader of the 28 independent churches of some 70 million Anglicans worldwide, will teach Theology 529, a one-credit summer session course on a subject in which he is unrivalled as the world's foremost expert, Anglican theology. The course, "Anglican Theology: Roots and Branches," will be taught from July 26-30.

Honors

Nadia M. Alhasani, assistant professor of architecture, received a "Citation for Service" as technology co-chair of the 1993 Association of Collegiate Schools of Architecture annual meeting, March 16.

Edward A. Kline, professor of English and O'Malley director of the Freshman Writing Program, served as a judge for the Midwest High School Athletic Association's Essay Contest in April.

James I. Taylor, associate dean of engineering and professor of civil engineering and geological sciences, was elected president of the Educational Division of the American Road and Transportation Builders Association for the 1993-94 term.

John VanEngen, professor of history and director of the Medieval Institute, has been named a corresponding member of the *Monumenta Germaniae Historica* in Munich, Germany, one of the oldest and most prestigious of Europe's publishing and research institutes for the study of the Middle Ages. VanEngen is only the second native-born American to receive this honor.

Kathleen Maas Weigert, associate professional specialist in the Center for Social Concerns, concurrent assistant professor of American studies and faculty fellow, in the Kroc Institute, has been appointed to the Mission Statement Steering Committee of the Association of Catholic Colleges and Universities.

Activities

Joseph P. Amar, assistant professor of classical and oriental languages and literatures, presented the paper "Characteristics of Syrian-Speaking Christianity" to the Combined Theology Colloquium: History of Christianity/Christianity and Judaism in Antiquity at the University of Notre Dame, Notre Dame, Ind., April 21.

Ani Aprahamian, assistant professor of physics, chaired a session on Nuclear Structure II: $160 < A < 190$ at the American Physical Society meeting in Washington, D.C., April 14. She presented an invited paper on "Multi-phonon Vibrations in Deformed Nuclei" at a symposium titled "Opening Questions in Nuclear Structure Physics" at that meeting, April 15.

Jacqueline Vaught Brogan, associate professor of English, was the featured poet at Writers and Other Troubadours in South Bend, Ind., March 23. She headed the panel on "Gender and the Lost Generation" at NEMLA in Philadelphia, Pa., March 26.

Bruce A. Bunker, associate professor of physics, was a member of the spring National Science Foundation DMR Instrumentation Review Panel in Washington, D.C., April 19.

Linda S. Buyer, assistant professor of psychology, presented the paper "The Role of Isolation in the Bizarre Imagery Phenomenon: von Restorff Revisited" co-authored with P. Worland and D.C. Anderson at the Midwestern Psychological Association in Chicago, Ill., May 3-5.

Robert R. Coleman, assistant professor of art, art history and design, chaired the session "Art Objects in the Context of Use" at the Renaissance Society of America national conference at Kansas City, Mo., April 16. He delivered a lecture titled "Renaissance Drawing: Working Studies to Aesthetic Object" for the spring lecture series "Structures: Strategies of Aesthetics" at the South Bend Regional Museum of Art in South Bend, Ind., April 20.

Sr. Regina A. Coll, C.S.J., associate professional specialist in theology, presented "Martin Luther King: The Educated Educator" at the University of Notre Dame, Notre Dame, Ind., Feb. 8. She gave a retreat day with the faculty of the Maryknoll School of Theology in Maryknoll, N.Y., March 17. She gave three lectures on "Women in Ministry" in the Thea Bowman Lecture Series in Detroit, Mich., March 19. She presented "Theological Reflection" to the Center for Social Concerns Alumni in Notre Dame, Ind., March 26. She gave a recollection day for liturgical ministers at St. Augustine Parish in South Bend, Ind., April 18.

Faculty Notes

Ronald Dorris, assistant professor of American studies, chaired the session "African American Reflective Images and Political Movements" and delivered the paper "Two Versions of One New Negro, 1916-1925" at the conference of the Popular/American Culture Association in New Orleans, La, April 9.

Julia V. Douthwaite, assistant professor of romance languages and literatures, presented a paper titled "Exploding the Myth of Occidental Superiority in Prévost's *Histoire d'une Grecque moderne*" and chaired a panel on "Dialogues Across the Channel: French and English Women Writers" at the meeting of the American Society for Eighteenth-Century Studies at Providence, R.I., April 24-25. She received a summer stipend from the National Endowment for the Humanities for the project "The History and Fictions of the 'Wild Girl of Champagne.'" She will travel to collections in Paris and London for this project.

Elizabeth P. Forbis, assistant professor of classical and oriental languages and literatures, delivered a paper titled "Sappho, Corinna and the Muses: Counterparts or Opposites?" at the annual meeting of the American Philological Association in New Orleans, La., Dec. 29. She organized a panel titled "Narrative Hubris in Ovid's *Metamorphoses*" at the annual meeting of the Classical Association of the Middle West and South in Iowa City, Iowa, April 17.

Abbot Astrik L. Gabriel, director and professor emeritus in the Medieval Institute and director of the Folsom Ambrosiana Microfilm and Photographic Collection, at the invitation of Robert C. Miller, director of libraries, delivered a lecture to celebrate the 30th anniversary of the dedication of the library in 1963 to the Friends of the Library, members of the Advisory Council and invited guests in Notre Dame, Ind., April 23. Gabriel presented the 2 millionth volume to the library, a rare book authored by the Chancellor of Notre Dame Cathedral and that of the University of Paris, Jean Gerson (1363-1429), called the "most Christian theologian." This work was printed in 1518 in Basel, Switzerland, and contains the works of Gerson, among them the chancellor's letters addressed to his students at the University of Paris.

Mohamed Gad-el-Hak, professor of aerospace and mechanical engineering, presented an invited lecture titled "Interactive Control of Turbulent Flows; A Futuristic View" as part of the Navy Seminar Series on Application of Microfabrication at the Naval Undersea Warfare Center in Newport, R.I., April 8.

Denis Goulet, O'Neill professor in education for justice, economics, presented a paper titled "World Development: Ethical Strategies" to the Colloque International Sur L'Ethique du Développement held at the Université de Québec à Chicoutimi, Chicoutimi, Canada, April 17.

William G. Gray, chairman and Massman professor of civil engineering and geological sciences, was an organizer of the minisymposium "Computational Advances in Modeling of Surface Water Flow" at the SIAM conference on Mathematical and Computational Issues in the Geosciences held in Houston, Tex., April 19-21. He was co-author of the presentation "Continuity Consideration in Shallow Water Modeling" made by Randall L. Kolar and on the presentation "Moisture Transport in Unsaturated Porous Media Including Dynamics of Interfaces" made by S. Majid Hassanizadeh at that meeting.

Alexander J. Hahn, professor of mathematics, currently guest professor at the University of Innsbruck, Austria, gave a lecture titled "Quadratic Forms and Quadratic Algebras" to the Algebra Seminar of the Department of Mathematics of the Aristotelian University of Thessaloniki, Greece, April 6. He lectured on the subject "New Results on the Arithmetic of Quadratic Forms" to the Mathematics Department of the University of Athens, Greece, April 9. He presented a lecture with the title "Quadratic Forms and Quadratic Algebras" to the Department of Mathematics of the University of L'Aquila, Italy, April 15. Hahn lectured on the subject "Quadratic Algebras and New Results on the Arithmetic of Quadratic Forms" to the Department of Mathematics of the University of Torino, Italy, April 19.

Carla Johnson, adjunct assistant professor in the Freshman Writing Program, presented "Hate Crime Recruitment on Television Talk Shows" at the annual meeting of the Popular Culture Association in New Orleans, La., April 9. She served as panel chair, was reappointed area chair for Jewish Studies for 1993-94 for the Popular Culture Association and presented "Humanities Education and the Art Museum" with **Diana Matthias**, assistant professional specialist in the Snite Museum of Art, at the National Humanities Education Association biennial meeting in Chicago, Ill., April 16. She was an organizer for the Indiana Teachers of Writing spring seminar at Saint Mary's College, Notre Dame, Ind., April 24.

Diana C.J. Matthias, assistant professional specialist in the Snite Museum of Art, organized the panel "Teaching the Humanities in the Art Museum" and read the paper "A Dramatic Reading of Last Letters of Victims of the Terror" at the National Association for Humanities Education biennial conference in Chicago, Ill., April 15-17.

Kevin M. Misiewicz, assistant chairperson and associate professor of accountancy, was interviewed on "Taxes on Domestic Service Providers" by WNDU-TV in South Bend, Ind., Feb. 8. He gave the plenary presentation "Taxing Students' Abilities to Think Critically" at the 1993 American Taxation Association mid-year meeting in Chicago, Ill., Feb. 26. He gave two interviews on "Deductible Interest" and "Deductible Taxes" on WNDU-TV evening news in South Bend,

Faculty Notes

Ind., March 3, 24. He presented a workshop on "Enhancing Critical Thinking Through the Accounting Curriculum" to faculty and doctoral students at the School of Accountancy at Arizona State University in Tempe, Ariz., March 10.

Walter Nugent, Tackes professor of history, delivered the annual Ray Allen Billington Memorial Lecture on "The Finding of the West, 1890-1940" at the Henry E. Huntington Library in San Marino, Calif., April 14.

Simon Pimblott, associate professional specialist in the Radiation Laboratory, chaired a session titled "Track Structure: Patterns of Interactions and Energy Depositions" and gave the oral presentation "Modelling of Radiation Chemical Kinetics" at the 1993 Miller Conference in Bowness-on-Windermere, England, April 3-8.

Morris Pollard, Coleman director of the Lobund Laboratory and professor emeritus of biological sciences, served as a special consultant to the American Cancer Society Headquarters in Atlanta, Ga., April 20. The development of the Notre Dame model system for prostate cancer was reviewed.

Jean Porter, associate professor of theology, served as consultant and panelist at the ninth annual Medical Ethics Conference sponsored by the Alumni Association of Notre Dame, Notre Dame, Ind., March 26-28. She served as a panelist at the Graduate School Preparation Workshop sponsored by the Career and Placement Office at the University of Notre Dame, Notre Dame, Ind., April 7.

Joseph M. Powers, assistant professor of aerospace and mechanical engineering, presented an invited lecture titled "Theory of Oblique Detonations and Application to Propulsion" at a seminar at the School of Aeronautics and Astronautics at Purdue University in West Lafayette, Ind., April 15.

Charles M. Rosenberg, associate professor of art, art history and design, delivered a paper titled "The Memory Theater of the Este" at the annual meetings of Renaissance Society of America in Kansas City, Mo., April 16.

Robert P. Schmuhl, associate professor of American studies, gave a talk on "How Clinton Uses the Media" at the annual state convention of the Indiana Collegiate Press Association at the University of Notre Dame, Notre Dame, Ind., April 3. He delivered the invited paper "The Limits of Multiculturalism" at the Fulbright Colloquium on Citizenship and Rights in Multicultural Societies in Bologna, Italy, April 15.

Susan Guise Sheridan, instructor in anthropology, presented the papers "Elemental Analysis of Iron-deficiency Anemia in an Ancient Sudanese Population" and "Bone Growth and Cortical Bone Loss in a Classic Hohokam Population from Pueblo Grande" co-authored with D.P. Van

Gerven and D.B. Burr at the 62nd annual meeting of the American Association of Physical Anthropologists in Toronto, Canada, April 14-17.

Steven B. Skaar, associate professor of aerospace and mechanical engineering presented an invited lecture and demonstration titled "An Automatically Guided Power Wheelchair for the Severely Disabled" with John-David Yoder and Eric Baumgartner at Hines Veteran's Administration Hospital in Hines, Ill., April 8.

Andrew Sommese, professor of the mathematics, gave the lecture "On k-very Ampleness and the Hilbert Scheme of Zero Dimensional Subschemes of a Smooth Projective Surface" at the Max-Planck-Institut für Mathematik in Bonn, Germany, April 14.

Anthony M. Trozzolo, Huisking professor emeritus of chemistry and biochemistry, presented an invited lecture titled "The Origins of Modern Photochemistry in Italy" at the Casa Italiana of the Italian Academy for Advanced Studies in America at Columbia University in New York, N.Y., April 12.

Jaime R. Vidal, assistant director of the Cushwa Center and concurrent assistant professor of theology, presented a paper on "Continuities Between Iberian and Hispanic-American Popular Religiosity" at the invitational colloquium sponsored by PARAL: Program for the Analysis of Religion Among Latinos held at Princeton University in Princeton, N.J., April 15-19.

A. Peter Walshe, professor of government and international studies, gave the keynote address "South Africa in Transition" and participated in a panel examining the impact of economic sanctions on the apartheid state, and led a discussion on the role of Rev. Beyers Naudé and the Christian Institute in the struggle against apartheid at Stetson University in DeLand, Fla., Feb. 22-23. He lectured on "South Africa: The Struggle Continues" at the Forever Learning Institute in South Bend, Ind., March 3.

Kathleen Maas Weigert, associate professional specialist in the Center for Social Concerns, concurrent associate professor of American studies and faculty fellow in the Kroc Institute, co-led a workshop on "Teaching Introductory Peace Studies" at the fifth annual Peace Studies Association meetings at Pennsylvania State University in University Park, Pa., March 11-14.

Mark Wilson-Jones, adjunct professor of architecture, delivered a paper titled "Particularities of Roman Entasis — New Surveys in the City of Rome" at the conference "Refinements in Classical Architecture Curvature" at the University of Pennsylvania Department of the History of Art in Philadelphia, Pa., April 4.

Administrators' Notes

Appointments

Susan L. Brandt, quality assurance coordinator for the Office of Financial Aid, has been promoted to assistant director of Financial Aid. She has been with the University since June 1987.

Lisa M. Lanpher, loan coordinator for the Office of Financial Aid, has been promoted to assistant director of Financial Aid. She has been with the University since November 1989.

Honors

Howard G. Adams, executive director of the National Consortium for Graduate Degrees for Minorities in Engineering and Science, Inc. (GEM), has been chosen to receive an ASEE Centennial Medallion in recognition of his "significant and lasting impact on engineering education" which will be presented at the 100th annual conference centennial celebration of the American Society of Engineering Education at the University of Illinois in June. Adams has been named one of three associate editors of *The Journal of Women and Minorities in Science and Engineering* which publishes articles reporting innovative ideas and programs, scientific studies and formulation of concepts related to the education, recruitment, and retention of underrepresented groups in science and engineering.

Activities

Michael Langthorne, associate director of Educational Media, presented and published the paper "Advanced But Flexible, Classroom Technologies" at the fourth annual national conference on College Teaching and Learning in Jacksonville, Fla., April 16.

Shiree Moreland, assistant director for information services, and Lisa Hines Berg, assistant director for campus clusters, Office of University Computing, participated in the panel presentations "Faculty Support of Instructional Technology" and "Electronic Classrooms — Design and Management" at the annual ACM SIGGUCS Management Conference which addressed management issues within computing organizations, specifically User Services, in higher education in St. Louis, Mo., March 18.

Rev. Peter D. Rocca, C.S.C., assistant vice president for student services, presented "Marriage as Sacrament" at the Marriage Preparation Retreat sponsored by Campus Ministry at Fatima Retreat Center, Notre Dame, Ind., April 24. He spoke on "The Mass: From the Lord's Supper to the Present" to participants in the Tri-Parish Education Program as Saint Bernard's Church in Benton Harbor, Mich., April 28. As an invited jurist, he assisted in the review of 21 architectural designs of a worship space presented by a class within the School of Architecture at the University of Notre Dame, Notre Dame, Ind., April 29.

Documentation

University Libraries' Hours During Summer Session June 14 - August 3, 1993

HESBURGH LIBRARY

	Building	Public Services
Saturday	9 a.m. - midnight	9 a.m. - 5 p.m.*
Sunday	1 p.m. - midnight	1 p.m. - 5 p.m.*
Monday through Thursday	8 a.m. - midnight	8 a.m. - 10 p.m.**
Friday	8 a.m. - midnight	8 a.m. - 5 p.m.***

*The Reserve Book Room will be open until 8 p.m.
The Audio-Video Center will be closed

**The Audio-Video Center will close at 5 p.m.

***The Reserve Book Room will be open until 8 p.m.

BRANCH LIBRARIES

	Architecture	Chemistry/Physics	Engineering	Life Science	Mathematics
Saturday	Closed	Closed	noon - 4 p.m.	Closed	Closed
Sunday	Closed	Closed	1 p.m. - 5 p.m.	Closed	Closed
Monday through Friday	10 a.m. - 3 p.m.	8 a.m. - 5 p.m.	8 a.m. - 8 p.m.*	8 a.m. - 5 p.m.**	8 a.m. - 5 p.m.

*Engineering will close at 5 p.m. on Friday

**Life Science will be open until 9 p.m. on Monday

ALL LIBRARIES RETURN TO INTERSESSION SCHEDULE AUGUST 4

ALL HOURS ABOVE ARE SUBJECT TO CHANGE — CHECK UNLOC FOR UPDATE ON HOURS

The Graduate School Research Division

Current Publications and Other Scholarly Works

Current publications should be mailed to the Office of Research of the Graduate School, Room 312, Main Building.

COLLEGE OF ARTS AND LETTERS

Core Course

Kinsey, Marjorie S.

M.S. Kinsey. 1993. Review of Helen and Albert Borowitz, Pawnshop and Palaces: The Fall and Rise of the Campana Art Museum. *Nineteenth-Century French Studies* 21(3-4):518-519.

M.S. Kinsey. 1993. Review of the Midwest Sculpture Exhibition. *New Art Examiner* 20(5):38.

M.S. Kinsey. 1992. Review of Transcendence with the Human Body in Art: George Segal, Stephen De Staebler, Jasper Johns and Christo, by D. Adams. *Religious Studies Review* 18(4):321.

Economics

Dutt, Amitava K.

B. Gibson and A.K. Dutt. 1993. Privatization and Accumulation in Mixed Economies. *Journal of Comparative Economics* 17:1-22.

English

Matthias, John E.

J.E. Matthias and V. Vuckovic. 1993. Three Poems by Branko Miljkovic translated from the Serbo-Croat. *TriQuarterly* (86):39-41.

VandenBossche, Chris R.

C.R. VandenBossche. 1992. The Year in Dickens Studies: 1990. Pages 253-279 in, M. Timko, F. Kaplan and E. Guiliano, eds., *Dickens Studies Annual*. AMS Press, New York, New York.

Romance Languages and Literatures

Cachey, Theodore J., Jr.

T.J. Cachey, Jr. 1993. Purgatorio XV. *Lectura Dantis: A Forum for Dante Research and Interpretation* 12 Supplement(Spring):212-234.

Theology

Cunningham, Lawrence S.

L.S. Cunningham. 1993. Holiness. Pages 479-488 in, M. Downey, ed., *The New Dictionary of Catholic Spirituality*. Liturgical Press, Collegeville, Minnesota.

L.S. Cunningham. 1993. The New Catechism: A First Reading. *Commonweal* 120(3/12/93):8-12.

L.S. Cunningham. 1993. Religious Booknotes: Atheists, Saints and Democrats. *Commonweal* 120(3/26/93):26-29.

COLLEGE OF SCIENCE

Chemistry and Biochemistry

Creary, Xavier

X. Creary, V.P. Casingal and C.E. Leahy. 1993. Solvolytic Elimination Reactions. Stepwise or Concerted? *Journal of the American Chemical Society* 115:1734-1738.

Fehlner, Thomas P.

W. Cen, T.P. Fehlner, Z. Kalenik and E.E. Wolf. 1993. Evaluation of the Catalytic Activity of a High Surface Area, Regular, Porous Solid Formed from the Clusters of Clusters, $M^{II}_4O[(CO)_9Co_3CCO_2]_6$, $M = Co, Zn$. *Materials Research Society Symposia Proceedings* 286:45-48.

See under Haller, Kenneth J. 1993. *Inorganic Chemistry* 32:995-1000.

Haller, Kenneth J.

W. Cen, K.J. Haller and T.P. Fehlner. 1993. Clusters as Ligands. Comparison of the Reactivity of $(CO)_9Co_3(\mu_3-CR)$ ($R = COOH, p-C_6H_4(CH_2)_2COOH$) Leading to the Formation of $Zn[p-C_6H_4(CH_2)_2CO_2]_2$ vs $M^{II}_4O[(CO)_9Co_3CCO_2]_6$ ($M = Zn, Co$). *Inorganic Chemistry* 32:995-1000.

Thomas, J. Kerry

X. Liu, K.-K. Iu and J.K. Thomas. 1993. Photophysical Properties of Pyrene in Zeolites. Observation of Pyrene Anion Radicals in Zeolites X and Y. *Chemical Physics Letters* 204(1,2):163-167.

Mathematics

Dwyer, William G.

W.G. Dwyer and C.W. Wilkerson. 1993. A New Finite Loop Space at the Prime Two. *Journal of the American Mathematical Society* 6(1):37-64.

Faybusovich, Leonid

L. Faybusovich. 1993. Hamiltonian and System-Theoretic Properties of the HR-Algorithm. *Journal of Mathematical Systems, Estimation and Control* 3(2):129-146.

Physics

Biswas, Nripendra N.

See under LoSecco, John M. 1992. *Physical Review D* 46:2773-2786.

Blackstead, Howard A.

Y. Liang, M.-H. Tsai, W.E. Packard, J.D. Dow and H.A. Blackstead. 1993. Ethereal "Interstitials" on the (110) Surface of InSb. *Solid State Communications* 86(1):33-37.

Cushing, James T.

J.T. Cushing. 1992. What if Bell had Come before 'Copenhagen'? Pages 125-134 in, A. van der Merwe, F. Selleri and G. Tarozzi, eds., *Bell's Theorem and the Foundations of Modern Physics*. World Scientific, Singapore.

The Graduate School Research Division

Kenney, V. Paul

See under LoSecco, John M. 1992. *Physical Review D* 46:2773-2786.

LoSecco, John M.

J.M. LoSecco. 1993. Experimental Tests of the MSW Effect. *Physical Review D* 47:2032-2039.

R. Becker-Szendy, et al., J.M. LoSecco. 1993. IMB-3: A Large Water Cherenkov Detector for Nucleon Decay and Neutrino Interactions. *Nuclear Instruments and Methods in Physics Research A* 324:363-382.

R. Becker-Szendy, et al., J.M. LoSecco. 1992. A Search for Muon Neutrino Oscillations with the IMB Detector. *Physical Review Letters* 69:1010.

J.M. LoSecco. 1992. Grand Unification Theories and Supersymmetry. Pages 985-992 in, F.N. Magill and T.A. Tombrello, eds., *Magill's Survey of Science: Physical Sciences*. Salem Press, Pasadena, California.

T. Alexopoulos, et al., J.M. LoSecco, N.N. Biswas and V.P. Kenney. 1992. Hyperon Production from Proton-Antiproton Collisions at $\sqrt{s} = 1.8$ TeV. *Physical Review D* 46:2773-2786.

J.M. LoSecco. 1992. Neutrino Observations of the 1987 Supernova A Long Time Ago in a Galaxy Far Away. *International Journal of Modern Physics* 1:69-99.

J.M. LoSecco. 1992. Storage Rings and Colliders. Pages 2388-2393 in, F.N. Magill and T.A. Tombrello, eds., *Magill's Survey of Science: Physical Sciences*. Salem Press, Pasadena, California.

R. Becker-Szendy, et al., J.M. LoSecco. 1992. The Electron and Muon Neutrino Content of the Atmospheric Flux. *Physical Review D* 46:3720.

COLLEGE OF ENGINEERING

Chemical Engineering

Varma, Arvind

See under Gray, Kimberly A. 1993. *Chemical Physics Letters* 205(1):55-61.

Wolf, Eduardo E.

See under Fehlner, Thomas P. 1993. *Materials Research Society Symposia Proceedings* 286:45-48.

Civil Engineering

Gray, Kimberly A.

U. Stafford, K.A. Gray, P.V. Kamat and A. Varma. 1993. An *in situ* Diffuse Reflectance FTIR Investigation of Photocatalytic Degradation of 4-Chlorophenol on a TiO₂ Powder Surface. *Chemical Physics Letters* 205(1):55-61.

Electrical Engineering

Berry, William B.

Z. Lin and W.B. Berry. 1992. FT-IR Evaluation of UV and Thermally Degraded Ethylene Vinyl Acetate (EVA) Solar Module Encapsulant. *Proceeding of the Eleventh E.C. Photo-*

voltaic Solar Energy Conference 1094-1097.

W.B. Berry, J.L. Sachs and R.L. Kleinman. 1993. Radio Frequency (RF) Third Rail Deicing - A Comparison with Heated Rail. *Proceedings of the 1993 IEEE/ASME Joint Railroad Conference* 1:41-46.

McGinn, Paul J.

D. Balkin, C. Varanasi and P.J. McGinn. 1992. The Effect of Er₂BaCuO₅ Additions on the Microstructure and Magnetic Properties of Zone Melt Textured YBa₂Cu₃O_{6+x} Wires. Pages 207-211 in, D.T. Shaw, C.C. Tsuei, T.R. Schneider and Y. Shiohara, eds., *Layered Superconductors: Fabrication, Properties and Applications*. Materials Research Society, Pittsburgh, Pennsylvania.

RADIATION LABORATORY

Chateaufneuf, John E.

J.E. Chateaufneuf. 1993. Spectroscopic Detection and Reactivity of the Chlorine Atom-Carbon Disulfide Molecular Complex. *Journal of the American Chemical Society* 115(5):1915-1921.

Ferraudi, Guillermo J.

G.J. Ferraudi. 1993. Magnetic Field Effects on the Rates of Cl₂⁻ and Br₂⁻ Reactions: The Dependence of the Rates of Radical Disproportionation and Oxidation of Mn(II) Complexes on Field Intensity. *Journal of Physical Chemistry* 97(11):2793-2797.

Helman, W. Phillip

F. Wilkinson, W.P. Helman and A.B. Ross. 1993. Quantum Yields for the Photosensitized Formation of the Lowest Electronically Excited Singlet State of Molecular Oxygen in Solution. *Journal of Physical and Chemical Reference Data* 22(1):113-262.

Kamat, Prashant V.

D. Liu and P.V. Kamat. 1993. Electrochemical Rectification in CdSe + TiO₂ Coupled Semiconductor Films. *Journal of Electroanalytical Chemistry* 347:451-456.

See under Gray, Kimberly A. 1993. *Chemical Physics Letters* 205(1):55-61.

LaVerne, Jay A.

J.A. LaVerne and A. Mozumder. 1993. Concerning Plasmon Excitation in Liquid Water. *Radiation Research* 133:282-288.

J.A. LaVerne, A. Hitachi and T. Doke. 1993. Scintillation Response of Liquid Argon for 3-20 MeV He Ions. *Nuclear Instruments and Methods in Physics Research A* 327:63-66.

Mozumder, Asokendu

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Ross, Alberta B.

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K.J. Blackstead. 1992. Marketing the Academic Library: Current Trends. *MLS: Marketing Library Services* 6(7):4-6.

The Graduate School Research Division

Summary of Awards Received and Proposals Submitted

In the period March 1, 1993, through March 31, 1993

AWARDS RECEIVED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	11	1,498,671	10	314,060	21	1,812,731
Facilities and Equipment	0	0	0	0	0	0
Instructional Programs	3	370,559	1	10,000	4	380,559
Service Programs	0	0	3	54,073	3	54,073
Other Programs	<u>1</u>	<u>245,959</u>	<u>1</u>	<u>30,436</u>	<u>2</u>	<u>276,395</u>
Total	15	2,115,189	15	408,569	30	2,523,758

PROPOSALS SUBMITTED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	11	1,318,188	16	3,288,400	27	4,606,588
Facilities and Equipment	1	30,000	1	11,870	2	41,870
Instructional Programs	2	7,980	0	0	2	7,980
Service Programs	0	0	3	522,719	3	522,719
Other Programs	<u>0</u>	<u>0</u>	<u>4</u>	<u>475,278</u>	<u>4</u>	<u>475,278</u>
Total	14	1,356,168	24	4,298,267	38	5,654,435

The Graduate School Research Division

Awards Received

In the period March 1, 1993, through March 31, 1993

AWARDS FOR RESEARCH

Aerospace and Mechanical Engineering

Mueller, T.
Indiana Business Modernization and Technology
Program
Purdue University
\$12,500 24 months

Biological Sciences

Lamberti, G., Lodge, D.
Interactions of Zebra Mussel and Crayfish
Environmental Protection Agency
\$95,296 24 months

Craig, G.
Vector Competence for LaCrosse Virus in *Aedes*
National Institutes of Health
\$323,130 12 months

Civil Engineering and Geological Sciences

Silliman, S., Babic, M.
Particle Transport through Heterogeneous Porous Media
Department of Energy
\$118,042 12 months

Neal, C.
Stratigraphic and Geochemical Study of Ontong Java
Plateau
National Science Foundation
\$53,000 24 months

Kirkner, D.
Response of Nonlinear, Flexible Pavements to Moving
Loads
Department of the Army
\$15,000 7 months

Gray, K.
Preozonation and Coagulation to Remove Disinfection
By-Products
Lyonnaise des Eaux
\$36,000 12 months

Rigby, J.
China Paleontological Research
Raymond Cash
\$3,000

Westerink, J.
Circulation Computations
University of North Carolina
\$36,456 12 months

Chemical Engineering

McCready, M.
Evolution of Flow Disturbances
Department of Energy
\$54,000 12 months

Chemistry and Biochemistry

Miller, M.
Siderophores, Analogs and Bioconjugates: Synthesis and
Study
National Institutes of Health
\$226,436 12 months

Tannor, D.
Wavepacket Studies of Photodissociation
National Science Foundation
\$60,000 36 months

Computer Science and Engineering

Cohn, D.
Distributed Computing Using Workstations/Personal
Systems
International Business Machines
\$300,000 13 months

Electrical Engineering

Sauer, K.
Object Oriented 3-D Reconstruction in Radiography
Electricité de France
\$51,510 14 months

Alcock, C.
Corrosion Studies of Oxide Electrolytes in Molten Salts
Argonne National Laboratory
\$10,000 3 months

Development of Oxygen and pH Sensors for Aqueous
Systems
Electric Power Research Institute
\$105,973 29 months

Antsaklis, P., Lemmon, M.
Intelligent Control and DES Identification
National Science Foundation
\$69,808 12 months

Mathematics

Hahn, A.
Coset Lattices
National Security Agency
\$4,000 24 months

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Physics

Furdyna, J.
Diluted Magnetic Semiconductors NSF/MRG
Purdue University
\$55,000 48 months

Tegler, S., Rettig, T.
Relative Abundance of Ices in Disks Around T Tauri Stars
NASA — Goddard Space Flight
\$15,000 12 months

Psychology

Borkowski, J., Whitman, T., et al.
Precursors of Retardation in Children with Teen Mothers
National Institutes of Health
\$168,580 12 months

AWARDS FOR INSTRUCTIONAL PROGRAMS

Civil Engineering and Geological Sciences

Spencer, B., Sain, M.
REU Supplement to NSF Contract #BCS-9006781
National Science Foundation
\$10,000 12 months

Center for Educational Opportunity

Blake-Smith, D., Smith, R.
Upward Bound
Department of Education
\$319,059 12 months

Chemistry and Biochemistry

Helquist, P.
Research Experience for Undergraduates Program
National Science Foundation
\$36,500 24 months

O.S.I.P.A.

Borelli, M.
Minority High School Student Research Apprentice
Program
National Institutes of Health
\$15,000 12 months

AWARDS FOR SERVICE PROGRAMS

Notre Dame Center for Pastoral Liturgy

Bernstein, E.
Center for Pastoral Liturgy
Various Others
\$1,847 1 month

Center for Pastoral Liturgy
Various Others
\$1,238 1 month

Center for Continuing Formation in Ministry

Cannon, K.
Center for Continuing Formation in Ministry
Various Others
\$50,988 1 month

AWARDS FOR OTHER PROGRAMS

Center for Educational Opportunity

Outlaw, W., Smith, R., et al.
Talent Search
Department of Education
\$245,959 12 months

Center for Social Concerns

McClory, E.
Indiana Consortium for Voluntary Service
Committee on National Community Service
\$30,436 14 months

Proposals Submitted

In the period March 1, 1993, through March 31, 1993

PROPOSALS FOR RESEARCH

Aerospace and Mechanical Engineering

Nelson, R.
Cavity Flow
NASA — Langley Research Center
\$36,739 10 months

Stanisic, M.
Developing Curvature Theory
National Science Foundation
\$206,295 36 months

Corona, E.
Cyclic Creep of Metal Under Biaxial Stress
National Science Foundation
\$191,171 36 months

The Graduate School Research Division

Biological Sciences

Hyde, D.
Vertebrate Homolog of rdb Gene
Retinitis Pigmentosa Foundation
\$327,698 36 months

Fraser, M.
Transposon Mediated Mutagenesis Nuclear Polyhedrosis
Viruses
National Institutes of Health
\$86,966 12 months

Civil Engineering and Geological Sciences

Westerink, J.
GRID Convergence Studies
Department of the Army
\$138,123 36 months

Circulation Computations
University of North Carolina
\$25,664 12 months

Pyrak-Nolte, L.
Seismic Waves in Fractured Rock
Department of Energy
\$323,080 48 months

Neal, C.
Apollo 12 Mare Basalt Petrogenesis
University of Tennessee, Knoxville
\$14,740 12 Months

Kirkner, D.
Response of Flexible Pavements: Student Research
Support
Department of the Army
\$138,123 36 months

Makris, N., Hill, D.
Semi-Active Fluid-Dampers for Seismic Structural
Protection
National Science Foundation
\$260,941 36 months

Chemistry and Biochemistry

Basu, S.
Biochemistry Studies with Human Colon Tumor Cell
United Health Services
\$12,382 12 months

Thomas, J.
Radiation Induced Processes on Clays
Environmental Protection Agency
\$500,000 36 months

Economics

Lorenz, E.
Policies for Participation in the United States
W.E. Upjohn Institute
\$52,392 9 months

Electrical Engineering

Porod, W., Lent, C., et al.
Coulombic Effects in Resonantly Coupled Quantum
Waveguides
Department of the Air Force
\$307,053 36 months

Coulombic Coupling Between Quantum Dots and
Waveguides
DARPA
\$307,053 36 months

Coulombic Coupling Between Quantum Dots and
Waveguides
Department of the Navy
\$307,053 36 months

Bandyopadhyay, S.
Hot Electron Effects and Quantum Magnetotransport
Department of the Army
\$177,939 36 months

Institute for International Peace Studies

Hayner, A.
NAFSA/USIA Baltic/East Central European Grant:
Lithuanian
NAFSA/Association of International Educators
\$30,296 9 months

Physics

Furdyna, J.
Diluted Magnetic Semiconductors NSF/MRG
Purdue University
\$57,895 6 months

Ruchti, R., Biswas, N., et al.
High Energy Collider Physics
Department of Energy
\$134,376 12 months

Livingston, A.
Highly Charged Ions in Electron Beam Ion Trap —
Supplement
National Institute of Standards and Technology
\$27,929 10 months

Blackstead, H.
Microwave Dissipation
Purdue University
\$6,000 4 months

The Graduate School Research Division

Tegler, S., Rettig, T.
XCN/H₂O Abundance in Taurus
Science and Engineering Research Council
\$0* 6 months

Aprahamian, A.
Nuclear Structure Studies
National Science Foundation
\$53,521 10 months

Browne, C.
Third Year Budget for Nuclear Structure Research
National Science Foundation
\$583,224 12 months

Kolata, J.
Third Year Budget for Heavy Ion Reaction Studies
National Science Foundation
\$299,935 12 months

PROPOSALS FOR FACILITIES AND EQUIPMENT

Physics

Tanner, C.
Measurements of Atomic Lifetimes with Laser Diodes
ILX Lightwave Corp.
\$11,870 3 months

Cason N., LoSecco, J., et al.
Equipment for Brookhaven Experiment E-852
Brookhaven National Laboratory
\$30,000 12 months

PROPOSALS FOR INSTRUCTIONAL PROGRAMS

Biological Sciences

Carlton, R.
Control of Biogeochemical Processes in Lake Sediments
National Science Foundation
\$3,980 7 months

Civil Engineering and Geological Sciences

Neal, C.
REU Supplement to NSF Grant EAR-91-18128
National Science Foundation
\$4,000 3 months

*Telescope time

PROPOSALS FOR SERVICE PROGRAMS

Office of University Computing

Hollander, A.
Client/Server Administrative Information Distribution
System
Lilly Endowment, Inc.
\$125,800 22 months

Center for Educational Opportunity

Blake-Smith, D., Smith, R.
Upward Bound Project
Indiana Department of Education
\$6,000 2 months

Center for Social Concerns

McClory, E.
Summer of Service
Committee on National/Community Service
\$390,919 12 months

PROPOSALS FOR OTHER PROGRAMS

Center for Educational Opportunity

Outlaw, W., Smith, R., et al.
Teen 2000 Summer Youth Employment Orientation
Workforce Development Services
\$37,856 5 months

Medieval Institute

English, E.
Sex, Gender and Family in the Middle Ages
National Endowment for the Humanities
\$127,002 12 months

Philosophy

MacIntyre, A.
Conference on the Moral Philosophy of Alan Donagan
Lilly Endowment, Inc.
\$12,572 5 months

Institute for Urban Studies

Smith, R.
Lilly Endowment Planning Grant
Lilly Endowment, Inc.
\$297,848 24 months

Notre Dame

R E P O R T

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