



# NOTRE DAME REPORT

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## Haegel, Larkin and Weber Elected Trustees

Notre Dame graduates Nancy Haegel and Thomas Larkin and Northwestern University Chancellor Arnold Weber have been elected to the Board of Trustees.

An associate professor of physics at Fairfield University, Nancy Haegel was graduated from Notre Dame in 1981 as co-valedictorian of her class with a bachelor of science degree in metallurgical engineering and materials science.

After earning master's and doctoral degrees from the University of California, Berkeley, she worked as a research scientist at the Siemens Research Laboratories in Erlangen, Germany. She joined the faculty in the Department of Materials Science and Engineering at UCLA in 1987 as an assistant professor and two years later was promoted to associate professor with tenure. She moved to Fairfield University, a Jesuit institution in Fairfield, Conn., in 1993.

Haegel's research interests are in the area of semiconductor materials, including the development and modeling of infrared detectors for use on astronomy satellites. She received the Excellence in Teaching Award from the UCLA School of Engineering in 1989 and was selected in 1990 to participate in the Kellogg National Fellowship Program, a leadership development initiative.

Haegel served on the Board of Trustees from 1987 to 1990 in one of the two trustee positions reserved for recent graduates of the University. She has served on the Advisory Council for Graduate Studies and Research since 1990.

Thomas Larkin has been president and chief operating officer of the Los Angeles-based Trust Company of the West (TCW) since 1977. He also serves as chairman and managing director of TCW Funds Management, Inc. and vice chairman and managing director of TCW Asset Management Company.

Larkin earned a bachelor's degree in economics from Notre Dame in 1961 and pursued postgraduate studies at the New York University Graduate School of Business from 1962 to 1966.

Prior to joining TCW, Larkin held management positions with Manufacturers Hanover Trust; Eastman Dillon, Union Securities; Shearson, Hayden, Stone, Inc.; Bernstein-Macaulay, Inc.; and Crocker Investment Management Corporation.

Larkin is active in a number of civic and professional organizations and is a board member of the Children's Hospital of Los Angeles, the California Pediatric and Family Medical Center, the Harvard-Westlake School, the Heart and Lung Surgery Foundation, the Los Angeles Music Center Operating Company, the Los Angeles Orthopaedic Hospital Foundation, and the Los Angeles Sports Council. He also has served the archdiocese of Los Angeles as a member of its investment committee and education foundation.

Prior to his election to the trustees, Larkin served as chairman of the College of Business Administration Advisory Council.

Arnold Weber became chancellor of Northwestern University a year ago after serving as president for the previous decade. He was president of the University of Colorado for the five years before that.

Weber serves on numerous boards nationally and in Chicago. He is president of the Civic Committee of the Commercial Club of Chicago and director of the Eurasia Foundation, an organization established by the U.S. Congress to support the development of democratic and free-market institutions in the former Soviet Union.

An expert on economic policy, Weber held faculty and administrative positions at Carnegie-Mellon University from 1970 to 1980 and also was a member of the faculties of the University of Chicago, Stanford University and the Massachusetts Institute of Technology.

Weber is the author of eight books and monographs and has been appointed to several government positions, including executive director of the Cost of Living Council, associate director of the Office of Management and Budget, and assistant secretary of manpower in the U.S. Department of Labor.

Weber holds bachelor's and master's degrees from the University of Illinois and a doctorate in economics from MIT. He received an honorary doctor of laws degree from Notre Dame in 1993.

## Glendon Named Commencement Speaker

Mary Ann Glendon, Learned Hand professor of law at Harvard University, will be the principal speaker at Notre Dame's 151st Commencement exercises May 19.

Glendon, a scholar of legal theory and comparative and constitutional law, led the Vatican's 22-member delegation to the United Nation's Fourth World Conference on Women in Beijing last September. She was the first woman ever to lead a Vatican delegation to a major world conference.

A much sought after writer, lecturer and social critic who is equally articulate in scholarly and popular discussions, Glendon addresses a wide variety of subjects including human and civil rights, abortion, the family, women, the legal profession and popular culture. Her devotion to the Catholic Church and her commitment to its social teachings are conspicuous in her preoccupation with the plight of the most vulnerable members of society, particularly the poor. A prominent intellectual in the pro-life movement, she is an outspoken defender of the economic interests of divorced women and their children.

Graduated from the University of Chicago in 1959, Glendon then earned her juris doctor and master of comparative law degrees, in 1961 and 1963, respectively, from the University of Chicago Law School. While practicing with the Chicago law firm of Mayer, Brown & Platt from 1963 to 1968, she also acted as a volunteer civil rights attorney. She joined the faculty of the Boston College Law School in 1968 and remained there until 1986, intermittently serving as a visiting professor at her alma mater.

Glendon is the author of nine books, including *Rights Talk*, *The Transformation of Family Law*, *The New Family and the New Property* and, most recently, *A Nation Under Lawyers*. Her book *Abortion and Divorce in Western Law*, was featured in Bill Moyers' "World of Ideas" television series.

Glendon was appointed by Pope John Paul II to the newly established Pontifical Academy of Social Science in 1994. She was elected president of UNESCO's International Association of Legal Science in 1991.

## UNDERC Residence Named for Craig

The faculty residence at Notre Dame's environmental research site near Land O'Lakes, Wis., will be named after the late George B. Craig Jr., Clark professor of biology and internationally renowned entomologist who died Dec. 21.

"Craig House" will be the new name for the two-apartment, four-bedroom log duplex first used by faculty at the Environmental Research Center (UNDERC) in the spring of 1989. Craig did research and taught undergraduates every summer at UNDERC.

## Academic Apparel Rental

Measurements for academic apparel for the May 1996 Commencement Exercises will be taken Tuesday and Wednesday, April 16 and 17, ONLY, from 9 a.m. to 4:30 p.m. at the Hammes Notre Dame Bookstore. The rental of a doctoral cap, gown and hood is \$30; the cap and gown is \$16; and the doctoral hood is \$14. Faculty who received a Ph.D. or law degree from Notre Dame should rent the Notre Dame doctoral cap, gown and hood. The rental fee is \$74; the cap and gown is \$54.50; and the doctoral hood is \$19.50. The rental of a cap, gown and hood for the master degree is \$27; the cap and gown is \$14; and the master hood is \$13.

# FACULTY NOTES

## Honors

Douglas W. Kmiec, professor of law, was appointed by David Davenport, president of Pepperdine University, to the Blue Ribbon Commission on Liberal Learning in the 21st Century.

John W. Lucey, associate professor of aerospace and mechanical engineering, received an Industrial Assessment Center Award of the Certificate of Environmental Achievement awarded to Notre Dame's IAC by the National Awards Council for Environmental Sustainability. Notre Dame's IAC, one of 30 centers located at universities nationwide, began operations in 1990.

Joachim J. Rosenthal, associate professor of mathematics, was appointed to the editorial board of *SIAM Journal on Control and Optimization*.

Mark A. Stadtherr, professor of chemical engineering, was named to the scientific committee for the third UNAM/Cray Supercomputing conference to be held in Mexico City, Mexico, Aug. 13-16.

Arvind Varma, Schmitt professor of chemical engineering, has been appointed visiting fellow in the Department of Chemical Engineering at Princeton University for the period Jan. 15-May 15.

James F. White, professor of theology, received a Festschrift for "The Sunday Service of the Methodists: Studies in Honor of James F. White" with "Tribute: James F. White: Historian, Liturgist, and Teacher" by Grant S. Sperry-White published by Abingdon Press, 1995.

## Activities

Joseph P. Amar, associate professor of classical and Oriental languages and literatures, gave the invited lecture "The Cause of the Foundation of the Christian Schools," a sixth-century Aramaic history of Catechetical Schools by Bar HadBshabba, bishop of Halwan, Iraq, to the History of Christianity seminar at the University of Notre Dame, Notre Dame, Ind., Feb 1.

Peri E. Arnold, professor of government and international studies, gave the invited talk "Policy Leadership in the Premodern Presidency: The Case of Theodore Roosevelt's Naval Policy" to a colloquium on American Governance in Historical Perspective sponsored by Brandeis University's Politics and History Departments and Harvard University's Program on Constitutional Government in Waltham, Mass., Feb. 7.

Albert-Laszlo Barabasi, assistant professor of physics, presented the invited talk "Fractal and Non-fractal Surfaces in Ion Sputtering" at the Materials Research Society fall meeting in Boston, Mass., Nov. 29. The talk was selected as a symposium highlight and press release. He presented the Condensed Matter seminar "Morphology of Ion Sputtered Surfaces" to the Department of Physics at the Universidad Simon Bolivar in Caracas, Venezuela, Jan. 9. He gave the invited talk "Interface Motion in Porous Media" at INTEVEP in Caracas, Venezuela, Jan. 10. Barabasi gave the seminar "Morphology of Ion-sputtered Surfaces" at the Department of Physics at the Universidad Central in Caracas, Venezuela, Jan. 11.

James T. Cushing, professor of physics, spoke as the invited commentator on the panel "Attacking Science: Science Critics Meet Their Critics" at the American Association for the Advancement of Science meeting in Baltimore, Md., Feb. 9.

Kenneth A. Featherstone, professor emeritus of architecture, displayed an exhibition of 32 paintings and prints exploring the theme of landscape at the Wells Gallery in Lafayette, Ind.

Denis Goulet, O'Neill professor of economics, delivered a paper titled "Development Costs, Alternatives" to the conference on Ethical Issues in International Development sponsored by the Lisle Fellowship, International Development Ethics Association and the University of Toledo's Department of Philosophy and the Center for International Studies and Programs at the University of Toledo in Toledo, Ohio, Feb. 16.

Sharon Hammes-Schiffer, assistant professor of chemistry and biochemistry, presented the talk "Including Quantum Effects in the Simulation of Proton Transfer: How the Hydrogen Hops" at the Gordon research conference on Isotopes in Biology and Chemistry in Ventura, Calif., Feb. 12.

Ahsan Kareem, professor of civil engineering and geological sciences, presented final recommendations concerning the wind load provisions for flexible structures, ASCE, July 1995, National Standard for Wind Load Design, at the American Society of Civil Engineers National Standard annual meeting in Dallas, Tex., Aug. 12. He presented the next five year plan for the American Society of Civil Engineers Structural Division's Committee on Wind Effects at a planning session of the committee held in the Department of Civil Engineering at Clemson University in Clemson, S.C., Aug. 18-19.

# FACULTY NOTES

**Kwan S. Kim**, professor of economics and fellow in the Kellogg Institute, was invited to present a paper on "Income Inequality in the United States; The Nature, Causes and Consequences" at an international symposium organized by the Economic Research Institute of Hitotsubashi University and sponsored by Japan's Ministry of Foreign Affairs in Tokyo, Japan, Jan. 26.

**Douglas W. Kmiec**, professor of law, gave the keynote address "Is American Democracy Compatible with the Catholic Faith?" at the Catholic Campaign for America in Washington, D.C., Nov. 13. He presented testimony before the U.S. Senate Judiciary Committee on the Partial Abortion Ban Act, Nov. 17. He gave the Hesburgh Lecture "The Family and Urban Life" to the African-American Catholic Families at Transfiguration Parish in Los Angeles, Calif., Jan. 6. He lectured on "Natural Law and the American Constitution" to the Catholics United for the Faith in Phoenix, Ariz., Jan. 20.

**Bradley J. Malkovsky**, assistant professor of theology, gave the presentation "Polytheism and the Hindu-Christian Encounter: A Reply to Vasudha Narayanan" at the annual convention of the Society for Hindu-Christian Studies in Philadelphia, Pa., Nov. 18.

**Rev. Richard P. McBrien**, Crowley-O'Brien-Walter professor of theology, presented "Liturgy and Church" as a response to Cardinal Godfried Danneels at the 25th anniversary celebration of the Center for Pastoral Liturgy at the University of Notre Dame, Notre Dame, Ind., Dec. 2. He gave the keynote address "The Catholicity of the Catholic Church" and presented "The Future of the Church: Looking Toward the Third Christian Millennium" at Mile-Hi conversations in Denver, Colo., Jan. 18-19. He presented "The Future of the Church: Looking Toward the Third Christian Millennium" at the Institute for Christian Ministries at the University of San Diego, Calif., Feb. 2.

**Rev. Ernan McMullin**, O'Hara professor emeritus of philosophy, gave a paper on "Cosmological Principles" at the international congress in Logic, Methodology, and Philosophy of Science in Florence, Italy, Aug. 25. He gave a colloquium on "Realism and Epistemic Virtue" to the Department of Philosophy at Johns Hopkins University in Baltimore, Md., Sept. 11. He lectured on "Science and Imagination" at a symposium on Medicine and the Humanities in Modesto, Calif., Sept. 30. He gave a paper titled "Galileo on Science and Scripture" at an international conference on Science and Scripture in the 17th Century at the University of Udine in Udine, Italy, Oct. 10. McMullin gave the annual Toulouse lectures "Science and Imagination," "Was Galileo Guilty?" and "Theory-appraisal in the Natural Sciences" at Seattle University in Seattle, Wash., Oct. 17-21. He lectured on "Cosmology

and Natural Theology" and on "Evolutionary Ethics" at the Templeton conference on Science and Religion in Tallahassee, Fla., Jan. 4-5.

**Karen M. Morris**, assistant professional specialist in chemistry and biochemistry, presented a chemistry demonstration show titled "Chemistry! It's a Gas!" at the fourth annual Science Alive! program at the St. Joseph County Public Library in South Bend, Ind., Feb. 10.

**Rev. Jerome H. Neyrey, S.J.**, professor of theology, presented "Jesus Was Not an American: How to Understand John's Gospel in Terms of His Ancient Culture" in the series "The Bible in the Church" at Christ Church Cathedral in Indianapolis, Ind., Nov. 5-6. He presented "The Trials (Forensic) and Tribulations (Honor Challenges) of Jesus in John 7" at the Society of Biblical Literature convention in Philadelphia, Pa., Nov. 18.

**Joseph M. Powers**, associate professor of aerospace and mechanical engineering, served as the technical coordinator for the "Propellants and Combustion" presentations and the session chair for the session titled "Laminar Combustion I" at the AIAA's 34th Aerospace Sciences meeting and exhibit in Reno, Nev., Jan. 15-18. He gave the invited seminar titled "Multidimensional Gaseous Detonations: Theory, Numerical Modeling, and Application to High Speed (>5) Propulsion" in the Department of Mechanical and Industrial Engineering at the University of Illinois in Urbana, Ill., Jan. 30.

**Stephen Scharper**, visiting O'Brien instructor in theology, presented "Locating Religious Voices in Globalization Discourse" with **Hilary Cunningham**, assistant professor of anthropology, at the American Academy of Religion annual meeting in Philadelphia, Pa., Nov. 21. He presented "The Role of Women in Warfare: A U.S. Military Case Study" at the Naval R.O.T.C. Leadership Weekend at the University of Notre Dame, Notre Dame, Ind., Feb. 2.

**Thomas J. Schlereth**, professor of American studies and concurrent professor of history, worked as a historical consultant for an exhibition titled "Baseball in American Life" at the Pittsburgh Regional History Center in Pittsburgh Pa., the National Baseball Hall of Fame in Cooperstown, N.Y., the Henry Ford Estate in Dearborn, Mich., Northeastern University in Boston, Mass., and the Newberry Library in Chicago, Ill.

**Mei-Chi Shaw**, professor of mathematics, gave the talk titled "Subelliptic Estimates for the  $8\bar{F}$ -Neumann Operator on Piecewise Smooth Strictly Pseudoconvex Domain" at the special session of the annual meeting of the American Mathematical Society in Orlando, Fla., Jan. 11.

# FACULTY NOTES

**Thomas Gordon Smith**, chairman and professor of architecture, delivered the keynote address "Taking the Grand Tour" for the Winterthur Guild seminar Design and Ornament in the Decorative Arts: Living with the Classical Style in Winterthur, Del., March 5.

**Mark A. Stadtherr**, professor of chemical engineering, served as chairman of the symposium on High Performance Computing in Chemical Process Engineering, co-authored "Frontal Solvers for Process Simulation: Local Row Ordering Strategies" with graduate student Kyle V. Camarda, and presented "A New Multifrontal Solver for Process Simulation on Parallel/Vector Supercomputers" co-authored with graduate student Jayarama Mallya at the American Institute of Chemical Engineers annual meeting in Miami Beach, Fla., Nov. 12-17. He presented "Frontal and Multifrontal Solvers for Chemical Process Simulation on Supercomputers" at the 1996 NSF Design and Manufacturing Grantees conference in Albuquerque, N.Mex., Jan. 2-5.

**Arvind Varma**, Schmitt professor of chemical engineering, chaired the session titled "Catalyst Design" and presented the paper "Metal-Composite and Ceramic Membranes: Synthesis, Characterization and Reaction Studies" at the AIChE annual meeting held in Miami, Fla., Nov. 12-17. He co-authored other papers presented at the meeting: "An Experimental and Theoretical Study of Combustion Wave Microstructure" presented by doctoral student Stephen Hwang; "Modeling and Analysis of the Reaction-Bonded Silicon Nitride Synthesis" co-authored with **William C. Strieder**, professor of chemical engineering, and presented by doctoral student Mostafa Maalmi; "Enhancement of Three-Phase Packed-Bed Reactor Performance by Tuning the Pulsing Frequency in Pulse-Flow Regime" co-authored with **Mark J. McCready**, associate professor of chemical engineering, and presented by doctoral student Ruiyun Wu. Varma co-authored the paper "Investigation of Phase Transformations and Ordering Curing Combustion Synthesis" presented by doctoral student Cynthia Kachelmyer at the Materials Research Society meeting held in Boston, Mass., Nov. 27-Dec. 1. Varma served as an invited participant in the NASA workshop on "Commercial Applications of Combustion in Space" held at the Colorado School of Mines in Golden, Colo., Dec. 7-8.

**Thomas Werge**, professor of English, presented the paper "The Engaging Text: Simone Weil on Attentiveness" at the Modern Language Association conference held in Chicago, Ill., Dec. 28.

**Rev. James F. White**, professor of theology, gave the keynote address at the Futures Forum for Christian Worship at the University of Michigan in Ann Arbor, Mich., Feb. 26.

**Kwang-Tzu Yang**, Hank professor of aerospace and mechanical engineering, presented a seminar titled "Areas of Recent Advances in Thermal Engineering in United States" at the Mechanical Engineering Laboratories, Hitachi, Ltd., Tsuchiura, Ibaraki, Japan, Dec. 14. He presented a seminar titled "Mechanism for Heat Transfer Enhancement in Zero-Mean Oscillatory Flows" at the Mechanical Engineering Laboratory of the Ministry of International Trade and Industry at Tsukuba Science City, Japan, Dec. 15. He presented a seminar titled "Heat Transfer in Zero-Mean Oscillatory Flows" in the Department of Mechanical and Intelligent Systems Engineering at the Tokyo Institute of Technology in Tokyo, Japan, Dec. 19. Yang delivered an invited lecture on "Mechanism for Heat Transfer Enhancement in Zero-Mean Oscillatory Flows" at the All India Second ISHMT-ASME Heat and Mass Transfer Conference and 13th National Heat and Mass Transfer Conference under the auspices of the U.S. National Science Foundation at the Karnataka Regional Engineering College, Surathkal, D.K., India, Dec. 28-30. He gave a seminar on "Neural Network Modelling of Heat Exchanger Performance" in the Department of Mechanical and Intelligent System Engineering at the Tokyo Institute of Technology in Tokyo, Japan, Jan. 9.

## Deaths

**Leroy D. Graves**, associate professor emeritus of civil engineering, Feb. 21. Graves received a bachelor of science degree from Purdue University in 1933 and earned an M.S.C.E. degree from Purdue in 1941. He joined the civil engineering department at Notre Dame in 1946 and retired after 31 years on the faculty. Graves was a founding partner of Shilts, Graves and Associates, a member of the St. Joseph Valley Chapter of the Indiana Society of Professional Engineers, American Society of Civil Engineers, American Society of Engineering Education, Sigma Xi, the Scientific Research Society and Chi Epsilon Fraternity. He was honored in 1981 as Outstanding Engineer of the Indiana Section of the American Society of Civil Engineers and Engineer of the Year by the St. Joseph Valley Chapter of the Indiana Society of Professional Engineers.

## Reverend Paul J. Foik Award

The Reverend Paul J. Foik Award Committee invites nominees for the award, which is given annually to a library faculty member who has contributed significantly to library service to the Notre Dame community or to the library profession through personal scholarship or involvement in professional associations. The award is named for the Holy Cross priest who served as director of Notre Dame's library from 1912 to 1924 and was a leading figure in the library profession in the first quarter of the 20th century. It is among those announced at the president's faculty dinner in May. Previous winners have been Maureen Gleason, deputy director, Robert Havlik, engineering librarian emeritus, Joseph Huebner, head of Collection Development, Rafael Tarrago, Latin American studies subject librarian, and Janis Johnston, associate director, Law Library.

All members of the University Libraries' and Law Library faculty with two or more years' tenure are eligible. Please send names of nominees, including justification, to the Reverend Paul J. Foik Award Committee, c/o Donald Sniegowski, Department of English, 356 O'Shaughnessy, by April 4.

# THE GRADUATE SCHOOL OFFICE OF RESEARCH

## 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

#### Art, Art History and Design

Rosenberg, Charles M.

- C. M. Rosenberg. 1995. Review of *The Sistine Chapel walls and the Roman liturgy*, by C. F. Lewine. *Renaissance Quarterly* 48 (4): 898-900.

#### Core Course

Neiman, Alven M.

- A. M. Neiman. 1996. Coherence, inclusion, prognosis: Remarks on the state of the philosophy of education society at fifty-one years old. In *Philosophy of education 1995*, ed. A. M. Neiman, xi-xvi. Urbana, Ill.: Philosophy of Education Society 1996.
- A. M. Neiman, ed. 1996. *Philosophy of education 1995*. Urbana, Ill.: Philosophy of Education Society 1996. xvi + 521 pp.

#### English

Fredman, Stephen A.

- S. A. Fredman. 1996. Review of *Modernism/modernity*, eds. L. Rainey and R. von Hallberg. *Sageetrieb* 13 (3):153.

Matthias, John E.

- J. Matthias. 1995. Not for sale in USA: Bloodaxe books, Part 2. *Another Chicago Magazine* 30 (Fall): 238-253.

#### Theology

Blenkinsopp, Joseph

- J. Blenkinsopp. 1995. Sacrifice and social maintenance: The non-ordination of Roman Catholic women. *Crosscurrents* 45 (3): 359-367.

McBrien, Richard P.

- R. P. McBrien. 1995. *Inside Catholicism: Rituals and symbols revealed*, ed. B. Roether. San Francisco, Calif.: Collins Publishers. 112 pp.

Neyrey, Jerome H.

- J. H. Neyrey. 1995. Loss of wealth, loss of family and loss of honor. The cultural context of the original makarism in Q. In *Modelling early Christianity. Social-scientific studies of the New Testament in its context*, ed. P. F. Esler, 139-158. London: Rootledge.

- J. H. Neyrey. 1995. Matthew's gospel in the Sundays in ordinary time year A. In *Pastoral liturgy*, eds. R. Hardiman and J. Ahern, 42-56. Dianella, Wash.

White, James F.

- J. F. White. 1995. James F. White: Complete bibliography. 1995. In *The Sunday service of the Methodists: Twentieth-century worship in worldwide Methodism: Studies in honor of James F. White*, ed. K. B. Westerfield Tucker, 347-353. Nashville, Tenn.: Abingdon Press.

#### Medieval Institute

Gabriel, Abbot Astrik L.

- A. L. Gabriel. 1996. Review of *Speculum philosophiae medii aevi: Die Handschriftensammlung des Dominikaners Georg Schwartz († nach 1484)*, by Maarten J. F. M. Hoenen. *Speculum* 71 (1): 158-159.

### COLLEGE OF SCIENCE

#### Biological Sciences

Christ, Daryl D.

- A. J. Minardi Jr., D. Christ and H. J. Saz. 1995. Effects of calmodulin and protein kinase C antagonists on muscle in the filariid, *Acanthocheilonema viteae*. *Journal of Parasitology* 81 (16): 989-996.

Saz, Howard J.

- See under Christ, Daryl D. 1995. *Journal of Parasitology* 81 (16): 989-996.

#### Chemistry and Biochemistry

Jacobs, Dennis C.

- J. S. Martin, B. T. Feranchak, J. R. Morris, J. N. Greeley and D. C. Jacobs. 1996. Simplified classical trajectory model of dissociative scattering on surfaces: Role of incident vibrational and translational energies. *Journal of Physical Chemistry* 100:1689-1697.

#### Physics

Barabasi, Albert-Laszlo

- L. A. Nunes Amaral, A-L. Barabasi, H. A. Makse and H. E. Stanley. 1995. Scaling properties of driven interfaces in disordered media. *Physical Review E* 52:4087-5005.

### COLLEGE OF ENGINEERING

#### Chemical Engineering

McCready, Mark J.

- R. Wu, M. J. McCready and A. Varma. 1995. Influence of mass transfer coefficient fluctuation frequency on performance of three-phase packed-bed reactors. *Chemical Engineering Science* 1995:3333-3344.

# THE GRADUATE SCHOOL OFFICE OF RESEARCH

Stadtherr, Mark A.

- M. A. Stadtherr. 1996. Frontal and multifrontal solvers for chemical process simulation on supercomputers. In *Proceedings of the 1996 NSF Design and Manufacturing Grantees Conference*, 167-168. Dearborn, Mich.: Society of Manufacturing Engineers.
- C. A. Schnepfer and M. A. Stadtherr. 1996. Robust process simulation using interval methods. *Computers and Chemical Engineering* 20 (2): 187-199.

Varma, Arvind

- C. R. Kachelmyer, A. S. Rogachev and A. Varma. 1995. Mechanistic and processing studies in combustion synthesis of niobium aluminides. *Journal of Materials Research* 10:2260-2270.
- A. S. Rogachev, A. Varma, V. A. Shugaev, I. Khomenko and C. R. Kachelmyer. 1995. On the mechanism of structure formation during combustion synthesis of titanium silicides. *Combustion Science and Technology* 109:53-70.
- See under McCready, Mark J. 1995. *Chemical Engineering Science* 1995:3333-3344.

## Computer Science and Engineering

Chen, Danny Z.

- T. Asano, D. Z. Chen, N. Katoh and T. Tokuyama. 1996. Polynomial-time solutions to image segmentation. In *Proceedings of the Seventh Annual ACM-SIAM Symposium on Discrete Algorithms*, 104-113. Atlanta, Ga.

## Electrical Engineering

Bernstein, Gary H.

- D. Chow, H. L. Dunlap, W. Williamson, S. Engquist, B. Gilbert, S. Subramaniam, P. Lei and G. H. Bernstein. 1996. Integration of InAs/AlSb/GaSb resonant interband tunneling diodes with Au-on-InAs/AlSb-superlattice schottky diodes. *IEEE Electron Device Letters* 17 (2): 69-71.

## SCHOOL OF ARCHITECTURE

Younés, Samir

- S. Younés. 1995. Technique, technology and the future of architecture. *American Arts Quarterly* (Fall):20-25.

## COLLEGE OF BUSINESS

### Accountancy

Simon, Daniel T.

- M. L. Costigan and D. T. Simon. 1995. Auditor materiality judgment and consistency modification: Further evidence from SFAS 96. In *Advances in accounting*, ed. P. M. J. Reckers, 207-222. Greenwich, Conn.: JAI Press.

## Management

Krajewski, Leroy J.

- L. J. Krajewski and L. P. Ritzman. 1996. *Operations management: Strategy and analysis*. 4th ed. Reading, Mass.: Addison-Wesley Publishing Company. 977 pp.
- B. Kaku and L. Krajewski. 1995. Period batch control in group technology. *International Journal of Production Research* 33 (1): 79-99.

## LAW SCHOOL

Bauer, Joseph P.

- E. W. Kinter and J. P. Bauer. 1996. *Economic theory, common law, and an introduction to the Sherman act*. Vol. 1, 1996 cumulative supplement to federal antitrust law. Cincinnati, Ohio: Anderson Publishing Co. iv + 51 pp.
- E. W. Kinter and J. P. Bauer. 1996. *Practices prohibited by the Sherman act*. Vol. 2, 1996 cumulative supplement to federal antitrust law. Cincinnati, Ohio: Anderson Publishing Co. iv + 333 pp.
- E. W. Kinter and J. P. Bauer. 1996. *The Robinson-Patman act*. Vol. 3, 1996 cumulative supplement to federal antitrust law. Cincinnati, Ohio: Anderson Publishing Co. iv + 72 pp.
- E. W. Kinter and J. P. Bauer. 1996. *The federal trade commission, the Clayton act section 3; section 7: Mergers and markets*. Vol. 4, 1996 cumulative supplement to federal antitrust law. Cincinnati, Ohio: Anderson Publishing Co. iv + 71 pp.
- E. W. Kinter and J. P. Bauer. 1996. *The Clayton act section 7: Enforcement; sections 8 and 10*. Vol. 5, 1996 cumulative supplement to federal antitrust law. Cincinnati, Ohio: Anderson Publishing Co. iv + 36 pp.
- E. W. Kinter and J. P. Bauer. 1996. *The federal trade commission introduction, organization, procedures, and non-adjudicative regulatory activities*. Vol. 6, 1996 cumulative supplement to federal antitrust law. Cincinnati, Ohio: Anderson Publishing Co. iv + 54 pp.
- E. W. Kinter and J. P. Bauer. 1996. *Federal trade commission other practices reviewed*. Vol. 7, 1996 cumulative supplement to federal antitrust law. Cincinnati, Ohio: Anderson Publishing Co. iv + 31 pp.
- E. W. Kinter and J. P. Bauer. 1996. *Federal trade commission other practices reviewed*. Vol. 8, 1996 cumulative supplement to federal antitrust law. Cincinnati, Ohio: Anderson Publishing Co. iv + 94 pp.
- E. W. Kinter and J. P. Bauer. 1996. *Antitrust exemptions specific industries and activities*. Vol. 9, 1996 cumulative supplement to federal antitrust law. Cincinnati, Ohio: Anderson Publishing Co. iv + 41 pp.
- E. W. Kinter and J. P. Bauer. 1996. *State action, Noerr-Pennington, and special industry exemptions*. Vol. 10, 1996 cumulative supplement to federal antitrust law. Cincinnati, Ohio: Anderson Publishing Co. iv + 22 pp.

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Shaffer, Thomas L.

T. L. Shaffer and R. F. Cochran Jr. 1995. Lawyers as strangers and friends. *University of Arkansas at Little Rock Law Journal* 18 (1): 69-84.

INSTITUTE FOR CHURCH LIFE

Philibert, Paul J., O.P.

P. Philibert, O.P. 1996. Religious life: Progress report on a journey. *Religious Life Review* 35 (176): 2-13.

P. Philibert, O.P. and F. Kacmarcik. 1995. *Seeing and believing: Images of Christian faith*. Collegeville, Minn.: Liturgical Press. xix + 204 pp.

RADIATION LABORATORY

Ferraudi, Guillermo J.

M. Sarakha and G. Ferraudi. 1996. Electron-transfer reactions of  $\text{Re}(\text{CO})_5$ : Atom-transfer-concerted mechanism vs bimetallic intermediate formation. *Inorganic Chemistry* 35 (2): 313-317.

# THE GRADUATE SCHOOL OFFICE OF RESEARCH

## Awards Received and Proposals Submitted

In the period January 1, 1996, through January 31, 1996

### AWARDS RECEIVED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	4	4,119,787	20	1,159,776	24	5,279,563
Facilities and Equipment	0	0	0	0	0	0
Instructional Programs	0	0	0	0	0	0
Service Programs	0	0	8	62,163	8	62,163
Other Programs	<u>1</u>	<u>75,000</u>	<u>2</u>	<u>55,582</u>	<u>3</u>	<u>130,582</u>
Total	5	4,194,787	30	1,277,521	35	5,472,308

### PROPOSALS SUBMITTED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	8	775,837	23	4,312,141	31	5,087,978
Facilities and Equipment	0	0	2	506,904	2	506,904
Instructional Programs	0	0	3	360,306	3	360,306
Service Programs	0	0	0	0	0	0
Other Programs	<u>1</u>	<u>276,658</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>276,658</u>
Total	9	1,052,495	28	5,179,351	37	6,231,846

## Awards Received

In the period January 1, 1996, through January 31, 1996

### AWARDS FOR RESEARCH

#### Aerospace and Mechanical Engineering

Mason, J.  
 Shear of Energetic Materials  
 Research and Development Laboratories  
 \$25,000 12 months

Mason, J., Roessig, K.  
 The Initiation of Reactive Materials  
 Research and Development Laboratories  
 \$25,000 12 months

Powers, J., Mason, J., et al.  
 Initiation of Detonation  
 Research and Development Laboratories  
 \$25,000 7 months

Powers, J.  
 Initiation of Detonation  
 Research and Development Laboratories  
 \$25,000 12 months

#### Center for Applied Mathematics

Atassi, H.  
 A Domain Decomposition-Based Numerical Laboratory  
 Old Dominion University  
 \$144,160 12 months

#### Civil Engineering and Geological Sciences

Spencer, B.  
 Smart Material Concepts  
 Purdue University  
 \$3,000 12 months

Silliman, S., Kulpa, C.  
 Analysis of Subsurface Heterogeneity  
 Department of Energy  
 \$68,087 12 months

Pyrak-Nolte, L., Lumsdaine, A.  
 Theoretical Analysis of Multiphase Flow  
 Gas Research Institute  
 \$308,020 24 months

# THE GRADUATE SCHOOL OFFICE OF RESEARCH

Kareem, A.

Structural Control  
Research Foundation of SUNY  
\$38,700 25 months  
Dynamic Response of Structures  
National Science Foundation  
\$10,000 12 months

Kirkner, D.

Nonlinear Analysis of Flexible Pavement Systems  
Department of the Army  
\$20,293 16 months

## Chemical Engineering

Maginn, E.

Advanced Molecular Simulations Applied to Zeolites  
Dow Chemical Company  
\$35,750 12 months

Stadtherr, M.

Reliable Prediction of Phase Equilibria  
American Chemical Society  
\$50,000 32 months

Varma, A.

Optimal Catalyst Activity Distributions in Pellets  
Union Carbide  
\$25,000

## Chemistry and Biochemistry

Wiest, O.

DFT Studies of Radical Ion Cycloreversion  
University of Illinois, Urbana  
\$0 12 months  
Stable Isotopes for Organic Chemistry  
Cambridge Isotope Laboratories  
\$510 24 months

Jacobs, D.

Energetic and Steric Effects in Ion/Surface Reactive  
Scattering  
Department of the Air Force  
\$99,655 24 months

## Electrical Engineering

Bernstein, G., Porod, W., et al.

Electromigration in Mesoscopic Interconnects  
Department of the Air Force  
\$129,500 12 months

Collins, O.

Investigation of Interaction of Codes and Decoding  
Machines  
National Science Foundation  
\$54,146 3 months

Bandyopadhyay, S., Miller, A.

Artificial Quantum Solids  
Department of the Army  
\$74,939 18 months

## History

Dolan, J.

The Search for an American Catholicism  
Lilly Endowment, Inc.  
\$50,000 24 months

## Institute for Church Life

Chang, P., Philibert, P.

Denominational Decision-Making in American  
Protestantism  
Lilly Endowment, Inc.  
\$38,753 9 months

## Radiation Laboratory

Asmus, K.

Effects of Radiation on Matter  
Department of Energy  
\$4,003,000 12 months

## Theology

Cavadini, J.

Fellowship for University Teachers  
National Endowment for the Humanities  
\$26,050 12 months

## AWARDS FOR SERVICE PROGRAMS

### Center for Continuing Formation in Ministry

Lauer, E.

Center for Continuing Formation in Ministry  
Various Others  
\$17,532 1 month  
Center for Continuing Formation in Ministry  
Various Others  
\$1,200 1 month  
Center for Continuing Formation in Ministry  
Various Others  
\$29,651 1 month

### ND Center for Pastoral Liturgy

Bernstein, E.

Center for Pastoral Liturgy  
Various Others  
\$540 1 month  
Center for Pastoral Liturgy  
Various Others  
\$5,528 1 month  
Center for Pastoral Liturgy  
Various Others  
\$4,544 1 month  
Center for Pastoral Liturgy  
Various Others  
\$3,132 1 month

# THE GRADUATE SCHOOL OFFICE OF RESEARCH

## Institute for Church Life

Cannon, K.  
Institute for Church Life  
Various Others  
\$36 1 month

## AWARDS FOR OTHER PROGRAMS

### Graduate School

Hatch, N.  
Arthur J. Schmitt Scholarship Program  
A.J. Schmitt Foundation  
\$75,000 9 months  
Liebmann Fund Fellowship for Michael Waddell  
Dolores Zohrab Liebmann Fund  
\$17,855 13 months  
Diffley, P.  
Jacob K. Javits Fellowship for Joan F. Ross  
Department of Education  
\$37,727 12 months

## Proposals Submitted

In the period January 1, 1996, through January 31, 1996

## PROPOSALS FOR RESEARCH

### Aerospace and Mechanical Engineering

Schmid, S.  
Nano-scale Adhesion, Abrasion and Friction  
Considerations  
National Science Foundation  
\$16,498 12 months  
Mason, J.  
Shear of Energetic Materials  
Research and Development Laboratories  
\$25,000 12 months  
Finite Element Wrist Model  
The Whitaker Foundation  
\$159,023 36 months  
Powers, J.  
Initiation of Detonation  
Research and Development Laboratories  
\$25,000 12 months  
Powers, J., Mason, J., et al.  
Initiation of Detonation  
Research and Development Laboratories  
\$25,000 12 months  
Mason, J., Roessig, K.  
The Initiation of Reactive Materials  
Research and Development Laboratories  
\$25,000 12 months

## Biological Sciences

Lodge, D.  
REU Supplement: Herbivory on Macrophytes  
National Science Foundation  
\$12,840 12 months  
Fraser, M.  
Genetic Engineering of Lepidopteran Pests  
Department of Agriculture  
\$455,808 36 months  
Bridgham, S.  
Research Experiences for Undergraduates Supplement  
National Science Foundation  
\$10,050 3 months  
Eldon, E.  
18-Wheeler and Relish: Conserved Pathways  
National Science Foundation  
\$1,091,000 60 months  
McAbee, D., Sitaram, M.  
Molecular Basis of Lactoferrin-Protein Interactions  
National Institutes of Health  
\$5,000 12 months  
Carlton, R.  
Effect of Atrazine on Microbial Biofilms and Nitrogen  
Cycling  
National Science Foundation  
\$256,715 36 months  
Goetz, F.  
Zebrafish Mutagenesis: A Screen for Reproductive  
Mutants  
Department of Agriculture  
\$247,239 36 months  
Fraser, M., Adams, J.  
Expression of Malarial Proteins in Transgenic  
Mosquitoes  
Burroughs Wellcome Fund  
\$405,390 48 months  
Feder, J.  
REU Supplement to Career Grant  
National Science Foundation  
\$30,000 27 months  
Fishkind, D.  
Actin-Myosin Structure and Function in Cytokinesis  
National Institutes of Health  
\$96,230 12 months

## Chemistry and Biochemistry

Blasquez, V.  
Structure/Function of Chromatin in B-Cell  
Development  
National Institutes of Health  
\$106,246 12 months  
Castellino, F.  
Blood Coagulation Protein-Metal Ion-Lipid Interactions  
National Institutes of Health  
\$255,203 12 months

# THE GRADUATE SCHOOL OFFICE OF RESEARCH

Huber, P., Wang, S.  
Binding of Aminoglycosides to HIV-1 TAR RNA  
J.C. Childs Memorial Fund  
\$82,500 36 months

Miller, M.  
Siderophores, Analogs and Bioconjugates  
National Institutes of Health  
\$266,839 12 months

## Institute for Church Life

Chang, P., Philibert, P.  
Denominational Decision-Making in American  
Protestantism  
Lilly Endowment, Inc.  
\$38,753 9 months

## Physics

Wiescher, M.  
Fourth International Symposium on Nuclei in the  
Cosmos  
National Science Foundation  
\$5,000 6 months

Glazier, J.  
A Comprehensive Approach to Modeling Cellular  
Patterns  
National Science Foundation  
\$201,672 24 months  
Acquisition of Wide Bore Nuclear MRI  
National Science Foundation  
\$881,418 24 months

## Psychology

Radvansky, L.  
Remembering Relational Information Across Eye  
Movement  
National Institutes of Health  
\$37,204 12 months

Kelly, A.  
Secrets in Counseling: A Barrier to Mental Health?  
National Science Foundation  
\$18,798 18 months  
Secrets in Counseling: A Barrier to Mental Health?  
National Institutes of Health  
\$36,558 12 months

Borkowski, J., Whitman, T.  
Research Training in Mental Retardation  
National Institutes of Health  
\$89,659 12 months

Gibson, B.  
Goal-Directed Attention Capture  
National Institutes of Health  
\$34,004 12 months

Radvansky, G.  
The Role of Memory and Language in Spatial Processes  
National Institutes of Health  
\$35,831 12 months

## Snite Museum of Art

Porter, D.  
IMS General Operating Support  
Institute for Museum Services  
\$112,500 24 months

## PROPOSALS FOR FACILITIES AND EQUIPMENT

### Chemical Engineering

McGinn, P., Miller, A., et al.  
Acquisition of an X-ray Diffractometer  
National Science Foundation  
\$310,034 12 months

### Electrical Engineering

Snider, G., Merz, J.  
Far-Infrared Near-Field Microscopy  
Advanced Research Projects Agency  
\$196,870 12 months

## PROPOSALS FOR INSTRUCTIONAL PROGRAMS

### Aerospace and Mechanical Engineering

Schmid, S., Renaud, J., et al.  
SME Education Foundation  
SME Education Foundation  
\$7,974 12 months

### Chemistry and Biochemistry

Nowak, T., O'Tousa, J.  
Interfacing Biology, Chemistry and Physics  
Burroughs Wellcome Fund  
\$0 60 months

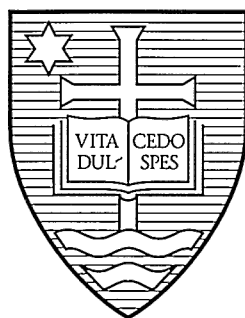
### Urban Institute

Blake-Smith, D., Smith, R.  
Upward Bound  
Department of Education  
\$352,332 12 months

## PROPOSALS FOR OTHER PROGRAMS

### Urban Institute

Outlaw, W., Smith, R., et al.  
Talent Search  
Department of Education  
\$276,658 12 months



# NOTRE DAME REPORT

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