motre dame report

contents

the university

- 149 Strategic Moment Seeks New Goal
- 149 Sesquicentennial Committee Named
- 150 Center for Homeless Dedicated
- 150 Architectural Center to Be Established
- 50 Student Computer Laboratory Dedicated

faculty notes

- 151 Honors
- 151 Activities

documentation

- 155 Minutes of the 224th Graduate Council Meeting September 28, 1988
- 156 Minutes of the Academic Council October 4, 1988
- 161 Minutes of the University Committee on Libraries October 5, 1988
- 162 University Library Hours during Christmas Vacation December 16, 1988--January 18, 1989

advanced studies

164 Current Publications and Other Scholarly Works



December 2, 1988





the university

strategic moment seeks new goal

The University has reached the \$300-million goal of the fund-raising campaign it announced 18 months ago, but underfunded parts of the campaign and new priorities mean seeking an additional \$117 million.

The trustees authorized the new funding target after reviewing a report that noted some crucial areas were still undersupported despite overall campaign success. Among them are undergraduate scholarship endowment, graduate fellowships, library endowment, and support for the Institute for Pastoral and Social Ministry. Also, since the campaign objectives were set almost five years ago, there are newly emergent needs, among them additional funds for campus computing, graduate student housing, a graduate school of business building, an earth and space sciences building, a performing arts facility, and a theology center.

sesquicentennial committee named

A committee on the sesquicentennial of the University has been appointed by Provost Timothy O'Meara. He will chair the 17-member group planning the 1992 observance of the 150 years since the University's founding by Holy Cross priest, Rev. Edward F. Sorin.

Executive chairperson of the committee is Sister John Miriam Jones, S.C., associate provost. Other members are Dominic Campanella and Cristin McCarthy, freshmen students; Angie Chamblee, assistant dean in the Freshman Year of Studies; Richard Conklin, assistant vice president for University Relations; Patrick Dunn, associate professor of aerospace and mechanical engineering; Ann Firth, director of residence life; Jeremiah Freeman, associate dean of science; Maureen Gleason, librarian; Michael Hamilton, graduate student; Nathan Hatch, acting dean of arts and letters; Edward Kline, director of the freshman writing program; Patrick Murphy, associate professor of marketing; Teresa Phelps, associate professor of law; Wendy Schlereth, University archivist: and Rev. Richard Warner, C.S.C., counselor to the president.

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center for homeless dedicated

Rev. Edward A. Malloy, C.S.C., president, was the keynote speaker at the dedication of the Center for the Homeless, November 29. Last summer the University purchased and began to renovate the vacant 38,000-square-foot building at 813 S. Michigan Street, which had housed the Gilbert's Men's Store until 1981.

The University will lease the building, now remodelled to accomodate single men, single women and families, to a coalition of community leaders incorporated as the Council of Providers of Services to the Homeless. The council has turned over responsibility for the new facility to the United Religious Community, which currently operates an emergency nighttime winter shelter with extensive volunteer help from Notre Dame students in the Maranatha Temple at 760 S. Michigan Street. Rev. Stephen Newton, C.S.C., who formerly directed a similar shelter in Portland, Oregon, has been hired to manage the 24-hour, seven-days-a-week facility, and to coordinate the wide variety of services it will make available.

At least 15 local social work agencies will help provide services, including alcohol and drug abuse counselling, welfare system advocacy, a drop-in center, eduational assistance, programs for the elderly, financial assistance, meals, housing referral, job training, legal advocacy, medical care, mental health care, an overnight shelter, and counselling for distressed pregnancies.

architectural center to be established

The University has received a \$200,000 gift from Ellerbe Becket, Inc., architects and

engineers, to establish a Chicago-based center for studies as part of the School of Architecture. The gift, to be given over a five-year period beginning in 1989, represents Ellerbe Becket's participation in the Strategic Moment campaign. Ellerbe Becket's Minneapolis/St. Paul, Minn., office has designed or renovated more than 30 buildings on the campus, beginning with O'Shaughnessy Hall of Liberal and Fine Arts in 1953.

The new Chicago center is intended to give architecture students and researchers a base for field studies and design work in a contemporary urban environment with a unique architectural tradition. The center will concentrate its studies in areas deemed significant to the profession and to the future of urban planning.

student computer laboratory dedicated

Rev. Edward A. Malloy, C.S.C., president, and executives from Apple Computer Inc. dedicated a new student computer laboratory designed to empower students with the latest in educational computing technology on November 16. The laboratory features 50 Apple Macintosh computer systems and a variety of peripheral devices.

As part of Apple's commitment and support of Notre Dame's computer education efforts, James J. Buckley, vice president of Apple, presented a \$450,000 computer equipment donation to the University's Faculty Workstations Program. The dedication included students demonstrating a variety of computer applications, such as desktop publishing, graphic displays, animation, and a new software program called Hyper-Card, which allows users to easily combine text, graphics, sound, video, and animation together to create multimedia presentations.

faculty notes

honors

Joan Aldous, Kenan professor of sociology, is the 1988 recipient of the Ernest W. Burgess Award in recognition of her continuous and meritorious contributions to theory and research in the family field of sociology. Aldous received this award at the annual conference of the National Council on Family Relations in Philadelphia, Pa., Nov. 14.

Abbot Astrik L. Gabriel, director and professor emeritus in the Medieval Institute and director of the Folsom Ambrosiana Microfilm and Photographic Collection, has been elected president of the International Society for Encyclopedia of Church History in Hungary. The society, with headquarters in Toronto, supports and directs research in the Vatican Archives, continuing the post-World War II publications of papal documents on the history of Hungary. It also publishes the review "Essays in Church History in Hungary."

A. Edward Manier, professor of philosophy, will begin a four-year term as secretary of the Section on History and Philosophy of Science - L of the American Association for the Advancement of Science at the meeting in San Francisco, Calif., Jan. 14-19, 1989.

Norlin Rueschhoff, professor of accountancy, has been elected secretary-treasurer of the International Association on Accounting Education and Research.

James I. Taylor, associate dean of engineering and professor of civil engineering, received the 1988 S.S. Steinberg Award from the American Road and Transportation Builders Association for his outstanding contribution to transportation education at its annual meeting in Phoenix, Ariz., Nov. 4.

activities

<u>Subash C. Basu</u>, professor of chemistry, presented an invited lecture "Biosynthesis of Glycolipids in Tumor Cell Surfaces" at the second Coleman/Fannie May Candies Foundation Cancer Research Conference in Chicago, Ill., Nov. 7.

Steven M. Bell, assistant professor of modern and classical languages, presented "Latin American Fiction and its Audiences, North and South" at the Midwest Association of Latin American Studies Conference at Indiana University, Bloomington, Ind., Oct. 20-22. He also presented "To Be or Not to Be of This World: Octavio Paz's Arbol adentro and the Drama of a Life of Writing" at the Midwest Modern Language Association Meeting at St. Louis, Mo., Nov. 3-5.

Jeffrey H. Bergstrand, assistant professor of finance and business economics, served as a discussant for two papers "Endogenizing the Management of a Joint Venture" and "Perfectly Discriminatory Policy Towards International Capital Movements in a Dynamic World" at the fall meeting of the Midwest International Economics Conference at Pennsylvania State University, University Park, Pa., Oct. 28-30.

William B. Berry, acting chairman and professor of electrical and computer engineering, chaired the 1988 meeting of the Midwest Electrical Engineering Department Heads Association sponsored by the National Engineering Consortium in Chicago, Ill., Nov. 11-12.

Kathleen A. Biddick, assistant professor of history, gave an invited paper titled "Going Against the Grain: Prices, Consumption and Cultivation on a Medieval Estate at the Economic History Association meeting, Detroit, Mich., Sept. 25. She gave an invited seminar titled "Was There a Culture of Production? Seigneurial Agriculture in Thirteenth-Century England" at the Charles Darwin Society at Purdue University, West Lafayette, Ind., Oct. 4. She organized a panel "Missing Links: Regional Transformation and Local Response in Medieval Economies" at the Social Science History Association meeting, Chicago, Ill, Nov. 4. She also delivered a paper titled "More of the Same or Something Different? The Move to Direct Management and Agrarian Reorganization of English Estates" at that meeting.

<u>Victor J. Bierman, Jr.</u>, associate professor of civil engineering, gave an invited seminar titled "Partitioning and Bioavailability of Organic Chemicals in Aquatic Sediments" at the U.S. Environmental Protection Agency, Environmental Research Laboratory, Duluth, Minn., Nov. 9.

Rev. Thomas E. Blantz, C.S.C., associate professor of history, presented a paper titled "George N. Shuster, the Commonweal Years, and American Catholic Reform" at the Duquesne History Forum, Duquesne University, Pittsburgh, Pa., Oct. 28.

John G. Borkowski, professor of psychology, presented a paper titled "Origins of Metacognitive Theory" at the University of North Carolina, Chapel Hill, N.C., May 27. He delivered the paper "Transitional Characteristics of Metacognition at the conference on "The Interface of Knowledge and Strategies" at the Max Planck Institute in Munich, West Germany, July 4. He presented "Attributional Beliefs and Impaired Learning" as part of a symposium on Cognitive Development at Dublin, Ireland, Aug. 22-26. He also gave an invited address on "Metacognition: From Laboratory to Classroom to Living Room" at Vanderbilt University, Nashville, Tenn., Oct. 27.

Gerald L. Bruns, White professor of English, presented the paper "What is Tradition?" at "Workshop on the Institutions of Interpretation" at the German-Israeli Foundation for Research and Devel-

opment, Hebrew University, Jerusalem, Israel, June 2-11. He gave the paper "On the Idea of a Radical Hermeneutics: A Reply to John Caputo" at the annual meeting of the Society for Phenomenology and Existential Philosophy, Northwestern University, Evanston, Ill., Oct. 13-15. He also presented "Tragic Thoughts at the End of Philosophy" at the symposium on Martha Nussbaum's "The Fragility of Goodness, Society for Values in Higher Education, University of Tennessee, Knoxville, Tenn., Oct. 27-29.

Karen L. Buranskas, associate professor of music, was invited to be a guest participant at the Michiana Cello Society Fall Festival at Western Michigan University in Kalamazoo, Mich., Oct. 1-2. She was a lecturer/teacher in a cello class, a panel moderator for a discussion on "Career Opportunities for Cellists in an Academic Environment" and solo performer in the concert finale at that festival. She was also invited to give a cello class in the Recital Hall of the School of Music at the University of Michigan in Ann Arbor, Mich., Oct. 29.

<u>Stephen R. Carpenter</u>, associate professor of biological sciences, gave the invited plenary lecture titled "Temporal Scales in Aquatic Ecology" at the conference "Predicting Across Scales: Theory Development and Testing" at the National Laboratory, Oak Ridge, Tenn., Nov. 8-11.

Krishna M. Choudhary, assistant professor of materials science and engineering, presented the paper "Photoemission EXAFS studies of Al/InP (110) and Na/InP (110) interfaces: Low-coverage metal-induced surface structural changes in the substrate determined" at the 1988 SRC Annual Users group meeting, Synchrotron Radiation Center, University of Wisconsin-Madison, Stoughton, Wis., Oct. 24-25.

Adela Yarbro Collins, professor of theology, gave two lectures on the Reception of Daniel in Early Christianity at the annual Showers Lectures, United Theological Seminary, Dayton, Ohio, Nov. 9.

<u>Xavier Creary</u>, professor of chemistry, presented a seminar titled "The Chemistry of α -Carbonyl, Phosphoryl, Sulfinyl and Sulfonyl Carbocations" at Eastman Kodak Co., Kingsport, Tenn., Nov. 1.

Lawrence S. Cunningham, professor of theology, gave the lectures "The Monk as Critic of Culture" and "Thomas Merton: Firewatcher" at the Thomas Merton Conference under the auspices of the Georgia Endowment for the Humanities, Atlanta, Ga., Nov. 10-12.

Rev. William J. Dohar, C.S.C., assistant professor of history, delivered the paper "Clerical Recruitment in the Late Medieval Church: A New Look at the English Bishops' Registers" at the 27th annual Midwest Medieval History Conference, Illinois State University, Normal, Ill., Oct. 7-8.

Amitava Krishna Dutt, associate professor of economics, presented an invited paper on "Sectoral Balance" at a conference on Medium Term Development Strategy at the World Institute of Development Economics Research, United Nations University at Helsinki, Finland, Aug. 9. Dutt also presented an invited paper on "North-South Trade Models: A Critical Appraisal of the State of the Art" at a conference on North-South Approaches to Trade and Development at the Department of Economics, University of North Carolina, Chapel Hill, N.C., Nov. 5-6.

<u>William G. Dwyer</u>, professor of mathematics, gave an invited talk "Contractible Spaces of Trivial Maps" in the University of Chicago Mathematics Department, Chicago, Ill., Nov. 8.

Josephine Massyngbaerde Ford, professor of theology presented "The Holy Spirit in the Biblical Tradition" at Villanova University, Villanova, Pa., June 13-15. She gave "The Holy Spirit and Missiology" to the American Missiology Society in Chicago, Ill., June 17-18. She also served on the Ph.D. dissertaton board for thesis on 1 Peter at Andrews University, Berrien Springs, Mich., July 5. She made a full presentation on the sociological and anthropological aspect of glossolalia at the Westar Institute, Social Facets Seminar, Atlanta, Ga., Oct. 14-16

<u>Gregory I. Gellene</u>, assistant professor of chemistry, presented a seminar titled "Rydberg Radicals: Energetics, Dynamics, and Spectroscopy" at the University of Delaware, Newark, Del., Nov. 7.

John J. Gilligan, director of the Institute for International Peace Studies, Shuster University professor, and professor of law, presented "Teaching Peace in a Christian Context" at the Boston University Institute for Philosophy and Religion, 20th annual program, On Peace, at Boston University, Boston, Mass., Nov., 9.

Sonia M. Goltz, assistant professor of management, presented "The Operation of Stimulus Generalization in Investment Decision Making" at ORSA/TIMS Joint National Meeting held in Denver, Colo., Oct. 25.

<u>Kwan S. Kim</u>, professor of economics and faculty fellow in the Kellogg Institute, was invited by the PRC Hunan Provincial government and the Hunan Management School to present a week-long lecture series on "Industrial Policy and Industrialization in East Asia" in Changsha, PRC, Oct. 15-29. He also participated in a closed-session discussion

with government officials on joint-venture experience of South Korea.

Edward A. Kline, professor of English and director of the freshman writing program, chaired the evaluation team for the Graduate Department of English, Loyola University of Chicago, Ill., Nov. 7-8.

<u>Catherine Mowry LaCuqna</u>, associate professor of theology, gave the talk for "Liturgy Day" titled "Can Liturgy Ever Again Be a Source for Theology?" held at Moreau Seminary, Notre Dame, Ind., Nov. 11.

William H. Leahy, professor of economics, presented a paper, "Regional Shifts in Industrial Locations" at the Indiana Policy Forum at Indiana University-Purdue University at Fort Wayne, Ind., Oct.7.

<u>David M. Lodge</u>, assistant professor of biological sciences gave the talk titled "Predator-mediated Snail and Macrophyte Community Patterns in Northern Wisconsin Lakes" as an invited speaker at the Midwest Conference on Population Biology at Madison, Wis., Nov. 4-6.

John M. LoSecco, associate professor of physics, presented the talk "Neutrino Astronomy" at the Physics Department Seminar, Indiana University, Purdue University at Indianapolis, Ind., Oct. 19.

Scott P. Mainwaring, associate professor of government and international studies and assistant faculty fellow in the Kellogg Institute, gave the paper "Grassroots Catholic Groups and Politics in Brazil" at the annual meeting of the Society for the Scientific Study of Religion, Chicago, Ill., Oct. 28. He was part of an "Author Meets Critics" session to discuss his book The Catholic Church and Politics in Brazil 1916-1985 at the annual meeting, Oct. 29. He lectured on "The Catholic Church and Politics in Latin America" held at Bringham Young University, Provo, Utah, Nov. 3.

Nannette D. Moegerle, assistant librarian in the Kresge law library, was a discussion leader for Technical Services at Ohio Regional Association of Law Libraries fall meeting at Indianapolis, Ind., Oct. 12-14.

<u>Karen M. Morris</u>, staff professional specialist in chemistry, presented a talk "Authoring With Course of Action Software" at SigMAChemI held at Texas Technical University, Lubbock, Tex., Oct. 21-22.

Asokendu Mozumder, faculty fellow in chemistry and the radiation laboratory, gave an invited lecture "Current Status of Radiation Chemistry from the Viewpoint of a Theorist" at the 31st annual meeting of Japanese Society of Radiation Chemists, Tokyo, Japan, Oct. 31-Nov.2.

Thomas J. Mueller, director of Engineering Research and Graduate Studies, chairman of aerospace and mechanical engineering, and Roth-Gibson professor of aerospace engineering, presented "The Future of Space Exploration" as part of the Hesburgh Alumni Lecture Series to the Notre Dame Alumni Club of Cleveland, Ohio, Nov. 9.

Rev. Edward D. O'Connor, C.S.C., associate professor of theology, gave the lecture "The Modern Marian Apparitions" at St. Anthony's Parish, South Bend, Ind., Oct. 23. He gave the Fourty Hours services at Our Lady of Hungary Parish, South Bend, Ind., Oct 27-29. He lectured on "Mary and the Holy Spirit" to the Sisters of Holy Cross, Notre Dame, Ind., Nov. 6.

Rev. Thomas F. O'Meara, O.P., Warren professor of theology, gave the lecture "The Office of Bishop and Collaborate Ministry" to the Bishops and Seminary Representatives of the State of Ohio, Columbus, Ohio, Oct. 5. He also lectured on "The Future of Ministry" on the occasion of the 20th anniversary of the Founding of the Washington Theological Union, Washington, D.C., Oct 27.

<u>William L. Petersen</u>, assistant professor of theology, presented two invited Bible Studies on Exodus at St. Stanislaus Church, Michigan City, Ind., Sept. 28 and Nov. 2.

Anand Pillay, professor of mathematics presented "Stability Theory" at the Logic Meeting at the University of Kiel, Kiel, West Germany, June 1-4. He lectured on "Groups Over O-minimal Structures at Free University, Berlin, West Germany, June 20. He also presented "Model Theory of Compact Lie Groups" at the University of Rennes, Rennes, France, June 23.

Alvin Plantinga, O'Brien professor of philosophy, gave two lectures on "Evil" at a meeting of the Society of Christian Philosophers at Bethel College, St. Paul, Minn., Oct. 13-4. He also gave the Norton Lectures "Christianity and Philosophy," "Is Belief in God Rational?," "Evil and Probability," and "Two Dozen or So Good Theistic Arguments" and gave seminars on "The Free Will Defense" and "Belief in God as Basic" at Southern Baptist Theological Seminary, Louisville, Ky., Oct. 25-28.

Morris Pollard, Coleman director of the Lobund Laboratory and professor emeritus of biological sciences, presented an invited lecture "Prevention and Treatment of Experimental Autochthonous Prostate Cancer in L-W Rats" at the second Coleman/Fannie May Candies Foundation Cancer Research Conference in Chicago, Ill., Nov. 7.

<u>Juan M. Rivera</u>, assistant professor of accountancy, presented the paper "The Effect of Exchange Rate Fluctuations on Stock Returns and Risk Measurement of U.S. Multinational Corporations" at the 1988 annual meeting of the Academy of International Business in San Diego, Calif., Oct. 22.

Jonathan Sapirstein, associate professor of physics, presented a seminar titled "Many-Electron Atoms" at Cornell University, Ithaca, N.Y., Oct. 19. He gave an invited talk titled "QED in High-z Few-electron Ions" at the 10th conference on the Application of Accelerators in Research and Industry, Denton, Tex., Nov. 7.

Robert H. Schuler, Zahm professor of radiation chemistry and director, Radiation Laboratory, gave the invited paper "Current Status of Radiation

Chemical Studies with Heavy Ions" at the Advisory Group Meeting on "Assessment of New Developments and Trends in Radiation Chemistry" in Bologna, Italy, Nov. 14-17.

Maurice E. Schwartz, associate professor of chemistry delivered the plenary lecture "This Theoretical Chemist Says 'Let's Teach Chemistry for What it Is, an Experimental Science'" at the fall meeting of the Indiana Alliance of Chemistry Teachers, Indianapolis, Ind., Oct. 28.

J. Eric Smithburn, professor of law, presented lectures on judicial discretion and practice and jury trial management to 100 general jurisdiction judges from throughout the U.S. and abroad at the National Judicial College, University of Nevada, Reno, Nev., Sept. 11-16. He presented lectures on evidence law to 35 family and juvenile court judges from throughout the U.S. at the National College of Juvenile and Family Law, University of Nevada, Reno, Nev., Oct. 16-21.

John W. Stamper, assistant professor of architecture, presented a paper titled "Methodologies for Transformation: Using History in the Design Studio" at the Associated Collegiate Schools of Architecture East Central Regional Meeting in Lexington, Ky., Oct. 20. He also presented a paper titled "Three Urban Spaces: A Gateway Typology and Its Reverse" at the ACSA West Central Regional Meeting in Kansas City, Kans., Oct. 21.

James P. Sterba, professor of philosophy, presented a paper titled "The Ethics of Nuclear Strategy" at the Indiana Conference on Peacemaking held at Indiana University, Bloomington, Ind., Sept. 16. He presented another paper titled "What is a Moral Approach to Practical Problems?" at the Center for Philanthropy, Indianapolis, Ind., Sept. 22. He was the Killeen Chair Lecturer "How to Make People Moral" at St. Norbert College, DePere, Wis., Oct. 6. He also presented a paper titled "Feminist Justice and the Family" and a Presidential Report on "Human Rights Violations in the U.S. Federal Prison System" at the meeting of the International Association for Philosophy of Law and Social Philosophy held at Pace University, New York, N.Y., Oct. 20-23.

Andrzej Walicki, O'Neill professor of history, delivered the paper on "Patriotism and the Meaning of History" at the first session of the conference "The Meaning of Polish History" held in the Royal Castle in Warsaw, Poland, Nov. 4-11.

Rev. James F. White, professor of theology, gave the seminar "Sacraments in Theory and Practice" at the North Central/New York Conference of the United Methodist Church, Syracuse, N.Y., Oct. 21. He was leader of the workshop "The Challenge of Interfaith Worship" for the United Religious Community, South Bend, Ind., Oct. 25.

John H. Yoder, professor of theology, gave the lecture "How the Moral Question of War Has Changed" at the Reinhold Niebuhr Institute, Siena College, Loudonville, N.Y., Nov. 10.

documentation

minutes of the 224th graduate council meeting september 28, 1988

The meeting opened at 3:30 p.m. in the Hayes-Healy Center Board Room. Absent with excuse were: Dean Yusaku Furuhashi replaced by Dr. C. Joseph Sequin; Dean Anthony N. Michel, replaced by Dr. James I. Taylor; Dr. Kwan S. Kim; Dr. David K. O'Connor (on leave); Dr. W. Robert Scheidt; Dr. Thomas J. Schlereth (on leave). Attending as guests of the Council were Drs. Neal M. Cason, Gerald L. Jones, Thomas Nowak, and Phillip R. Sloan.

Minutes of the 223rd Meeting.

The minutes of the 223rd meeting were approved as circulated.

II. Review of the Department of Physics

The Chairman briefly described the main phases of the review process, in particular the various categories of review recommendations available to the Graduate Council. He next invited Dr. Arvind Varma, Chairman of the Physics Review Committee, to highlight his committee's report.

Dr. Varma opened by noting that the external reviewers were distinguished physicists with strong research and administrative credentials. On the whole, the review was very positive. The Department has made great strides forward in improving the quality of the program and in establishing high-quality research. The faculty represents the major areas of contemporary physics. The external and internal reviewers were impressed with the growth of the Department.

The size of the faculty is good and given the size of the graduate and undergraduate programs, it is difficult to justify an increase. The faculty is generally of high quality and productive. Virtually all of the faculty have externally funded research programs, are directing graduate student dissertation research, and are active in scholarly publishing. A number of faculty have received recognition for their research. However, more attention should be given to external recognition. The teaching loads are very reasonable and compare favorably with other research-oriented physics departments.

Graduate student enrollment is currently about 75 (50% are U.S. citizens). It has increased by about 30% in the last five years. The ratio of US-foreign students is typical of the national average. The quality of graduate students is generally good, although the U.S. students come mostly from small colleges. Efforts should be made to attract more students from major research universities.

The present graduate student-faculty ratio is 2.4 could be raised to 3 or 4. Graduate student support from the University appears to be adequate. If graduate enrollment is to be increased, additional support should come primarily from research grants.

Good procedures have been established to encourage graduate students to begin their research early, i.e. in their second semester at Notre Dame. The median time of six years to the Ph.D. degree may be a little too long. The average attrition rate of 28% for the last ten years does not seem to be unusual. The production of Ph.D. graduates has averaged six per year over the last five years, although it is showing an increasing trend in the recent past, as the number of enrolled students has increased.

The Ph.D. graduates have obtained jobs in industry, national research laboratories, or as postdoctoral research associates at major research universities. Those who teach have gone mostly to smaller colleges. The quality of recent Ph.D. dissertations was generally high, "either on the cutting edge or moderately central to the dicipline."

One major concern on the part of graduate students is the lack of research and office space. Some students have also complained that the University, as they see it, is "primarily undergraduate-oriented."

The undergraduate program is strong. Excellent research opportunities are available for undergraduate participation. However, the number of physics majors is relatively small. The current number of 8-9 students per year should be at least doubled to about 20. A recommendation is to request the undergraduate admissions office to target a larger number of physics majors in the entering Freshman Year class.

The lack of space for both research and teaching is considered by all parties involved in the review to be a serious problem. The new addition to Nieuwland Hall will help, but the problem calls for a long-term solution. Shortage of space will be further aggravated with the increase of students and new demand for facilities, as recommended by the reviewers. The need for a modern teaching facility is again stressed.

Computing facilities are good for some research groups and not so for others. It is hoped that the University computing plan will provide for the needs of both graduate and undergraduate students. An electronics shop and a student shop should also be added in the future. There is need for better access to materials characterization facilities for the solid state program. Interdepartmental cooperation could provide some access to such facilities, although in some cases new facilities are required.

The acquisiton of the MSU superconducting cyclotron would be a boost to our nuclear physics program. However, this machine would require a major commitment of resources in faculty, staff and budget. It is recommended that we weigh this option with great caution.

Dr. Varma concluded that the department has made great strides forward; that the immediate future should be a period of consolidation and strengthening of recent gains; and that the department should conduct vigorous discussion of its long-term directions and plans.

Following this presentation, the Chairman invited Dr. Cason to respond.

Dr. Cason began with the issue of graduate enrollment. Graduate enrollment has increased dramatically from the upper 30's in 1980 to nearly 80 last year. This change has been possible due to new research funding and some increase in support from the Office of Advanced Studies. Sixty percent of student support has come from external sources. We look to further growth, but we should not expect it to be large. Additional teaching assistant slots will be needed. The Department continues to work at increasing both the quantity and quality of graduates students.

Dr. Cason next commented on the attrition rate. Attrition has not been caused by the loss of weak students, but of good students who moved to places they themselves considered to be better than Notre Dame. The quality of students has increased in the last five years. We are receiving more applications from good students each year. With regard to the time to degree, six years is not unusual in physics, and it would be very difficult to lower this number.

The department recognizes the space problem as the number one departmental problem. The new addition to Nieuwland will help, but the problem should be dealt with in the context of long-range university campus planning.

Our physics major graduates have done very well after leaving Notre Dame. Most of them have continued graduate study at Ph.D. institutions. We can, and should, have more undergraduates in the department. The implementation, however, is in the hands of the Admissions Office, not the Department.

We recognize that theroetical particle physics needs additional faculty. The department's long-range goal is to have a chair position in this area, and this will be implemented as soon as funding becomes available.

Dr. Jones followed Dr. Cason to comment on the Varma report. He agreed with the points already made by Dr. Cason. He referred to the problems of space and enrollment increase as the two particularly difficult problems for the department to solve. He expressed the wish to see the theoretical physics chair filled rapidly. He said that we should not have to wait for the next faculty retirement which may not occur for another five years.

Dean Francis J. Castellino was next to comment on the review report. He said that the review has been very positive in the main, and that we should not focus our discussion entirely on problems. We have good reasons to be proud. We have an outstanding department and a dedicated faculty. The program--both teaching and research--is well positioned and sound. He would like to see the faculty (33 members at present) grow to 35, mainly for reasons of establishing critical mass in the various research areas of the department. The next non-committed chair in the College of Science will be allocated to Physics. With regard to the recommendation for graduate enrollment increase, Dean Castellino said there should be more research, rather than teaching, assistants.

The Chairman noted that this was the first review (in the second round) to be completed; that it was a good and sound review. The problems that have surfaced (e.g. space shortage, small enrollment, low external recognition of the faculty) are not endemic to Physics. He, then, called for a motion to be entertained, that the Graduate Council recommended approval of the Physics program "without reservation." This was duly moved and seconded. The motion was carried unanimously.

The Council guests, Drs. Cason, Jones, Nowak, and Sloan, left at this point.

III. CHAIRMAN'S REMARKS

Tax Matters:

The Chairman reported on a new development related to the 1986 Tax Reform Act. A section of—the new Act requires that all full-time employees receive equal treatment with regard to pension and other benefits. The problem for colleges and universities is to decide whether graduate students should be considerred full-time employees. Several states have defined "full time employees" as anyone working twenty or more hours per week. Many institutions in those states, therefore, require only eighteen or nineteen hours of work for their graduate or research assistants.

It now appears that the Congress may decide on 17 1/2 as the qualifying number of hours for full-time employees. If this is the case, such a ruling may cost an institution like Purdue about \$3 million. At Notre Dame, it has been computed that the cost could be between \$1 and \$2 million.

However, we have a long-standing tradition at Notre Dame to treat graduate and research assistants consistently as students, not employees. Every graduate student receiving a stipend in any semester or summer session is (and has been) registered for at least one credit hour. If the Congressional decision (17 1/2 hours per week for full-time employees comes into effect, we may reduce our maximum requirement of TA/RA weekly workload to seventeen hours as an added measure to reinforce our traditional position of treating students as students and not full-time employees.

Some institutions now treat tuition as taxable income while others consider tuition as scholarship and, thus, nontaxable. We have traditionally treated tuition as a scholarship, separate from any other support (i.e. stipends). It is important for us to keep that distinction.

The last item related to tax as reported by the Chairman was the recent emergence in Washington, D.C., of a lobbying group on behalf of graduate studnets, called a "Coalition Against Taxing Students."

- 2. <u>Honorary Degree</u>: The Graduate Council has the privilege of nominating an individual for an honorary degree for the May 1989 Commencement. The deadline is November 1. The Chairman proposed to appoint a committee and charge it with selecting an individual whom we would identify to the President as the Graduate Council nominee. The individual should be an outstanding scholar from one of the disciplines represented in the four divisions of the Graduate School. The committee should give special attention to minorities and women this year. In the future, each division will have the opportunity to nominate one principal individual plus one alternate.
- 3. <u>Application Statistics</u>: New students: 2,344 applications for degree programs; 652 or 28% accepted (the percentage of acceptance has steadily decreased as admission has become more rigorous); 1621 or 69% rejected; 71 or 3% withdrew or were not acted upon for one reason or another.
- Of those 652 accepted, 347 or 53% confirmed; 248 or 38% declined; 57 or 9% did not respond to the offer. Declinations are for a variety of reasons, the main one being financial.
- 4. <u>Application Fee</u>: The costs of adminsitering graduate admissions continue to increase: a function of rising printing costs, overtime pay to handle peak periods, and postage. The current fee of \$20 was introduced ten years ago. A survey of application fees shows four schools without fees, one school with a \$10 fee, five with a \$15 fee, eight with a \$25 fee, and the other seven with \$30, \$35, \$40 or \$45 fees. We will increase ours to \$25 next year.
- 5. <u>Grading System</u>: The new grading system involving the addition of + and has the Graduate School in the position of accepting C- as its lowest passing grade. A statement from the Registrar's Office reads: "In the Graduate School, the "C-" grade will now be the lowest passing grade but a "D" will still be worth 0.0 quality points." The Chairman proposed C as lowest passing grade and no grade of "D" for the Graduate School. He invited the members to consider this issue to be discussed at the next meeting.
- 6. Zahm Research Travel Funds for Graduate Students: \$10,000 available; to date, nine proposals and eight awards; \$4,000 remaining.

7. Jesse H. Jones Funds:

Research: Deadline for proposals, January 13; \$85,000 available.

Equipment: Deadline for proposals, January 27; \$56,000 available.

Travel: No deadline; \$15,000 available; one proposal to date from Arts and Letters for \$1.500.

IV. Other Business

There was no other business. The meeting was adjourned at 5:10 p.m.

minutes of the academic council october 4, 1988

Members in attendance: Rev. Edward A. Malloy, Prof. Timothy O'Meara, Rev. E. William Beauchamp, Prof. Roger Schmitz, Rev. David Tyson, Prof. Robert Gordon, Deans Francis Castellino, Yusaku Furuhashi, Nathan Hatch, Emil Hofman, David Link, and Anthony Michel; Rev. James Burtchaell; Professors John Borkowski, Leo Despres, Fernand Dutile, Michael Etzel, Mark Herro, Barry Keating, Jerry Marley, Willam McGlinn, Dian Murray, Daniel Pasto, Philip Quinn, William Shephard, and J. Robert Wegs; Mr. J. Douglas Archer, Mr. Robert C. Miller, Dr. James Powell, Dr. Ellen Weaver, Dr. Kathleen Maas Weigert; Students Christine Boron, Chirstopher Harris, Daniel Gerlach, and Kevin Passino.

Observers in attendance: Mr. Richard Conklin and Capt. George Dewhirst.

Guest: Mr. John Goldrick, Associate Vice President for Residence Life.

- 1. The Council approved the minutes of the meeting of May 4, 1988.
- 2. Election and Appointments of Members to the Executive Committee. By vote of the members of the Council, the following individuals were elected to the 1988-89 Executive Committee: Dean Castellino, Professors Crosson, Dutile, Hatch and Marley. In addition, Mr. Archer, Prof. Etzel, and Mr. Gerlach were appointed to the Committee by Fr. Malloy. Prof. O'Meara, Prof. Schmitz, and Dr. Weaver serve as ex-officio members.
- 3. Appointment of a Panel of Reviewers for Appeals Concerning Alleged Faculty Employment Discrimination Based upon Sex. Prof. O'Meara announced that the membership of this panel for 1988-89 would be the same as that of last year. The members are Profs. Neal Cason, Yu Chi Chang, Xavier Creary, Philip Gleason, Julia Knight, Naomi Meara, Katherine Tillman, Edward Trubac, and Arvind Varma.
- 4. Changes in Sections 5.2, 6.1 and 6.2 of the Academic Code. Mr. Goldrick presented a proposal to change sections 5.2 and 6.2 of the Academic Code which would delete the final sentence of the present version of the former and the entire text of the latter. He explained that these changes reflect the actual present and past practices regarding student withdrawal and readmission processes and that formalizing them would help to insure that the processes follow regular and normal channels. In response to questions from the Council, he explained that a clearance form is routinely sent from his office to health officials in all cases of readmission applications. Further discussion led to an ammended proposal to include also changes in section 6.1 in order to clarify procedures and render them applicable to both advanced and undergraduate students.

The Council approved the ammended version without dissent. The affected sections are shown below where added parts are underscored and deleted parts are enclosed in brackets [].

- 5.2 A medical withdrawal, granted explicitly for reasons of health, is governed by the same procedure as that described in Section 5.1 above except that the recommendation of the University health officials is also required. [The process for readmission, however, differs. (Section 6.2)]
- 6.1 A student who wishes to be readmitted must apply to the <u>appropriate</u> director of admissions. Such readmission requires the approval of both the dean of the college or school in which the student wishes to matriculate and the Associate Vice President for Residence Life, [as well as] <u>after</u> consultation with the University health officials.
- [6.2 The process for return to the University following medical withdrawal is coordinated by the University Registrar, to whom the student should write directly. Such readmission requires the approval of both the student's dean and the University health officials as well as consultation with the Associate Vice President for Residence Life.]
- 5. Changes in Section 22.1 of the Academic Code. Prof. Marley presented a proposal to change section 22.1 of the Academic Code so as to clarify that the minimum grade averages stipulated for academic good standing of first- and second-semester students apply only to

freshmen, not to transfer students at more advanced levels. This change would replace the bracketed portion of the following excerpt from section 22.1 by the insert shown below.

22.1 Determination of academic good standing is made as follows: Undergraduate

[First-semester minimum semester average: 1.700. Second-semester minimum semester average: 1.850. Third-semester minimum semester average: 2.000.

Fourth- and subsequent semesters minimum semester average: 2.000.]

Failure to retain ...

INSERT

First-semester freshmen: minimum semester average of 1.700. Second-semester freshmen: minimum semester average of 1.850 All others: minimum semester average of 2.000.

The proposal was approved without dissent.

- 6. Remarks by the Provost. Prof. O'Meara handed out a set of sheets giving statistical information on various subjects including freshman classes of the 1980's, plans of graduating seniors, graduate enrollments and test scores, sponsored programs, and faculty salaries. In discussing these and related matters, he emphasized the following points.
- The present freshman-year minority enrollment is 13.7% of the freshman class. The University's goal is a minimum of 15% in each freshman class by 1992.
- The mean SAT score of this year's freshman class is 1210, and 80% of the freshmen ranked in the top 10% of their high-school class. Both are all-time high figures for Notre Dame.
- Of considerable concern is the decreasing number of undergraduate majors in science, both at Notre Dame and nationally, and the consequent threat to the availability of future scientists.
- There is a campus-wide need to increase the size and improve the overall quality of the graduate student body. Strongly coupled to this are the needs for higher stipends and more assistantship slots.
- Over the past ten years, at least, GRE (composite) and GMAT scores of first-year advanced students have fluctuated around a generally increasing trend, reaching their highest values in that period of 1816 and 540, respectively, in 1986-87 and 1987-88. The average composite GRE score of the total graduate student body has followed a similar trend, reaching its highest value in the ten-year period of 1823, in 1987-88. L/SAT scores of Law students have remained nearly constant at the 85 percentile level.
- Following a recommendation of the PACE study, comprehensive reviews of the University's academic departments, centers, institutes, and library are under way. Reviews have been completed for the Library and the Departments of English, Economics, Physics, and Civil Engineering. Biological Sciences will be completed through the current semester, and Philosophy, Materials Science and Engineering, Psychology, and Chemistry are scheduled for site visits during the spring semester.
- Sponsored program awards have increased from \$9.4 million in FY 1979 to \$29.9 million in FY 1988. (These amounts include special large awards.) These figures reflect the change in research involvement and proposal activity of the faculty. The largest relative gains were in the College of Arts and Letters where the annual awards averaged \$1.34 million over the past four years compared to \$246,000 over the previous four. Average figures for the same periods were \$8.31 and \$4.37 million for Science, \$3.2 and \$3.58 million for Engineering, \$107,000 and \$160,000 for Business Administration, and \$44,000 and \$9,400 for Law.
- The total number of regular faculty positions dedicated to full-time teaching and research has increased from 530 to 630 since 1983-84. The increase is due principally to a combination of budget increments for expansion positions, the conversion of non-regular faculty salaries and other monies to regular faculty positions, and the filling of endowed chairs. About two-thirds of all such positions are presently held by tenured faculty. Of the tenured faculty, five are blacks and thirty are women--compared to last year's number of three and twenty-five respectively.
- By way of example, ten faculty positions were recently added to the College of Business Administration to ensure that all business courses would be open to students in all colleges, subject only to meeting the necessary prerequisites.
- Notre Dame's average 1987-88 faculty salaries of \$60,700 for professors, \$42,400 for associate professors, and \$35,800 for assistant professors ranked 24th, 23rd and 17th, respectively, on the A.A.U.P. salary survey of research universities. For the fourth consecutive year, these levels give the University an A.A.U.P. rating of 1 for all three ranks.

- While the overall quality of recent appointees to the faculty has been good, the selection process will be tightened even further to eliminate the occasional exceptions.
- The Library's financial problems, caused principally by significant increases in the cost of foreign publications, have not abated even though special increases were made in the Library budget. The problems led to the cancellation of some journal subscriptions last year. (Mr. Miller elaborated on the Library's situation, commenting that Notre Dame has fared better than many other institutions through a difficult financial situation. He commented that the automation project is progressing well. UNLOC has increased circulation noticeably, and the computerized circulation system may be implemented in January or February.)
- Finding adequate space in academic buildings for classrooms, offices and laboratories, both on the Notre Dame campus and in the London facilities, continues to be a problem.
- The University's computing problems have been addressed by the recent approval of plans to provide more than \$17 million for capital expenditures over the next four years and a significant increase in the annual budget. (A copy of a letter to the faculty from Prof. Schmitz announcing this action was distributed to the Council.)
- Computing and library improvements will lead to a tightening of available funds for other matters over the next two years.

A discussion period following the Provost's remarks touched briefly and informally on a number of subjects including the distribution of faculty positions among the colleges, a concern about the relatively small number of Notre Dame seniors who go directly to graduate school, and the likely consequences of a significant increase in Notre Dame's tuition.

Respectively submitted,

Roger A. Schmitz Secretary of the Academic Council

minutes of the university committee on libraries october 5, 1988

The meeting was called to order at 4:00 p.m. in the University Club by the Chairman, Harvey Bender. Also in attendance were committee members John Lucey, Bill McDonald, Robert Miller, James Robinson and W. Robert Scheidt, and secretary Melodie Eiteljorge.

The minutes of the meetings of June 1 and September 14 were approved as written.

Robert Miller announced in his Director's Report that he would be meeting with the Development Office the next week to review marketing strategies. The campaign is still advancing very well in regard to the Libraries.

The Director also reported that a new cataloger is in place, and she will be splitting her time between cataloging and the assignment of acting as Preservation Officer. She will devote half her time to each.

The Head of Reference position has not yet been filled, and there is also an opening for an assistant acquisitions librarian.

Version 4.5 of UNLOC has arrived. Faculty identification cards should be in in the next two weeks, and they will be mailed to home addresses. Following this, a pilot project of bringing up Circulation will be undertaken in the Life Sciences Library. It is hoped that the entire Library system will be up by January.

Bob Miller noted that there have been some computer maintenance problems recently, mostly with the 7171s. Conversion efforts are going well. Forty-seven percent of the current serials holdings are in the database. The project should be finished by March. Also during the next couple of months, there will be a review of dead serials.

In finishing his report, Miller distributed copies of his annual report.

The next agenda item was to select a replacement for Joseph Blenkinsopp, who is on leave through the next semester. Several candidates were considered. Bob Miller and Harvey Bender will contact prospective faculty members and report back at the next meeting.

It was decided that the next two meetings will be held on November 9 and December 7 at $5:30 \ p.m.$ in the University Club.

The meeting adjourned at 5:05 p.m.

Respectfully submitted,

Melodie Eiteljorge Secretary to U.C.L.

university library hours during christmas vacation december 16, 1988—january 18, 1989

	MEMORIAL LIBRARY		ENGINEERING & SCIENCE
<u>Date</u>	Building	Public Services	LIBRARIES
Fri. Dec 16	8 a.m9:45 p.m.	8 a.m4:45 p.m.	8 a.m5 p.m.
Sat. Dec. 17	9 a.m9:45 p.m.	9 a.m4:45 p.m.*	Closed
Sun. Dec. 18	1 p.m9:45 p.m.	Closed	Closed
Mon. Dec. 19 through Thurs. Dec. 22	8 a.m9:45 p.m.	8 a.m4:45 p.m.	8 a.m5 p.m.
Fri. Dec. 23	8 a.m9:45 p.m.	Closed	Closed
Sat. Dec. 24 and Sun. Dec. 25	Closed for the Christmas Holidays		
Mon. Dec. 26	9 a.m4:45 p.m.	Closed	Closed
Tues. Dec.27 through Thurs. Dec. 29	9 a.m4:45 p.m.	10 a.m4 p.m.*	10 a.m4 p.m.
Fri. Dec. 30	9 a.m4:45 p.m.	Closed	10 a.m4 p.m.
Sat. Dec. 31	9 a.m4:45 p.m.	Closed	Closed

	MEMORIAL LIBRA	ENGINEERING	
Date	Building	Public Services	& SCIENCE LIBRARIES
Sun. Jan. 1	Closed for New Year's Day		
Mon. Jan. 2	9 a.m4:45 p.m.	Closed	Closed
Tues. Jan. 3 through Fri. Jan. 6	8 a.m9:45 p.m.	8 a.m4:45 p.m.	8 a.m5 p.m.
Sat. Jan. 7	9 a.m9:45 p.m.	9 a.m4:45 p.m.*	Closed
Sun. Jan. 8	1 p.m9:45 p.m.	Closed	Closed
Mon. Jan 9 through Fri. Jan. 13	8 a.m9:45 p.m.	8 a.m4:45 p.m.	8 a.m5 p.m.
Sat. Jan. 14	9 a.m9:45 p.m.	9 a.m4:45 p.m.*	Closed
Sun. Jan. 15	1 p.m9:45 p.m.	Closed	Closed
Mon. Jan. 16 and Tues. Jan. 17	8 a.m9:45 p.m.	8 a.m4:45 p.m.	8 a.m5 p.m.
Wed. Jan 18	Return to regular academic schedule		

*The following public service areas will be open: Circulation Services Current Periodicals Reference Center

current publications and other scholarly works

Current publications should be mailed to the Division of Sponsored Programs Room 314, Administration Building

COLLEGE OF ARTS AND LETTERS

Economics

Dutt, Amitava K.

A.K. Dutt. 1988. Income Elasticity of Demand for Southern Goods, International Demonstration Effects and Uneven Development. Journal of Development Economics 29(1):111-122.

English

Fredman, Stephen A.

S.A. Fredman. 1988. Review of On the Modernist Long Poem by Margaret Dickie. American Literature 60(3):506-507.

Philosophy

Sterba, James P. J.P. Sterba. 1988. How to Make People Just. Rowman & Littlefield, Totowa, New Jersey. 200 pp.

Sociology

Aldous, Joan

J. Aldous and D.M. Klein. 1988. The Linkages Between Family Development and Family Stress. Pages 3-15 in, D.M. Klein and J. Aldous, eds., Social Stress and Family Development. Guilford Publications, Inc., New York, New York.

See under Klein, David M. 1988. Editors. Guilford Publications, Inc., New York,

New York. i-xii + 274 pp.

Klein, David M.

D.M. Klein and J. Aldous. 1988. Editors. Social Stress and Family Development. Guilford Publications, Inc., New York,

New York. i-xii + 274 pp. See under Aldous, Joan. 1988. Pages 3-15 in, D.M. Klein and J. Aldous, eds., So-cial Stress and Family Development. Guilford Publications, Inc., New York, New York.

Theology

Cunningham, Lawrence S.

L.S. Cunningham. 1988. Review of Thomas Berry and the New Cosmology. Commonweal 115:573-574.

L.S. Cunningham. 1988. Religious Booknotes: Catholic Lives. Commonweal 115: 507-509.

Ford, Josephine M.

J.M. Ford. 1988. The Social and Political Implications of the Miraculous in Acts. Pages 137-160 in, P. Elbert, ed., Faces of Renewal. Hendrickson, Peabody, Massachusetts.

Malloy, CSC, Edward A.

E.A. Malloy, CSC. 1988. Discourse Between the Two Cultures. Science, Religion and The Humanities 19:3-31.

McMullin, Rev., Ernan E. McMullin. 1988. Natural Science and Belief in a Creator: Historical Notes. Pages 49-79 in, R. Russell, W. Stoeger and G. Coyne, eds., Physics, Philosophy and Theology: A Common Quest for Understanding. Vatican Observatory, Rome. Italy.

Melloh, SM, John A.
J.A. Melloh, SM. 1988. Review of Preaching: The Art and the Craft by Walter J. Burghardt, SJ. (Mahwah: Paulist, 1987). Worship 62(4):83-84.

J.A. Melloh, SM. 1988. Forum: Homiletic: Moves and Structures. Worship 62(3):266-

269.

J.A. Melloh, SM. 1988. The Word of the Lord. Liturgy: Journal of the Liturgical Conference 7(2):9-13.

O'Meara, OP, Thomas F.

T.F. O'Meara, OP. 1988. Revelation in Schelling's Lectures on Academic Study. Page 121ff in, F. Falgueras, ed., Los Comienzos filosoficos de Schelling. University de Malaga, Malaga, Spain.

Petersen, William L.

W.L. Petersen. 1988. The Text of the Gospels in Origen's Commentaries on John and Matthew. Pages 34-47 in, C. Kannen-giesser and W.L. Petersen, eds., Origen of Alexandria: His World and His Legacy. University of Notre Dame Press, Notre Dame, Indiana.

Ulrich, Eugene C.

E.C. Ulrich. 1988. Origen's Old Testament Text: The Transmission History of the Septuagint to the Third Century, C.E. Pages 3-33 in, C. Kannengiesser and W.L. Petersen, eds., Origen of Alexandria: His World and His Legacy. University of Notre Dame Press, Notre Dame, Indiana.

White, James F. J.F. White. 1988. Gottesdienst: Freikirchliche Tradition. Evangelisches Kirchenlexikon 2:273-275.

Yoder, John H. J.H. Yoder. 1988. Armaments and Eschatology. Studies in Christian Ethics 1(1): 43-61.

COLLEGE OF SCIENCE

Biological Science

Fehlner, Thomas P. T.P. Fehlner. 1988. Metal-Rich Ferra- and Cobaltaboranes. Mimics of Organometallic Clusters. New Journal of Chemistry 12:

Chemistry

Kolasa, Teodozyj T. Kolasa and M.J. Miller. 1988. Oxidations of Some α -Amino Under Mitsunobu Reaction. Tetrahedron Letters 29(37): 4661-4664.

T. Kolasa, S.K. Sharma and M.J. Miller. 1988. α-N-Hydroxyamino Acid Derivatives. Tetrahedron 44(17):5431-5440.

Miller, Marvin J.

See under Kolasa, Teodozyj. 1988. Tetrahedron Letters 29(37):4661-4664. See under Kolasa, Teodozyj. 1988. Tetrahedron 44(17):5431-5440.

Sharma, Sushil K.

See under Kolasa, Teodozyj. 1988. Tetrahedron 44(17):5431-5440.

Physics

Bishop, James M. See under Cason, Neal M. 1988. Physical Physical Review Letters 61(7):802-805.

Biswas, Nripendra N.

See under Cason, Neal M. 1988. Physical Review Letters 61(7):802-805.

Bose, Samir K.

S.K. Bose and W.D. McGlinn. 1988. Effect of Finite Mass on Gravitational Transit Time. <u>Physical Review D</u> 38:2335. Busenitz, Jerome K.

See under Cason, Neal M. 1988. Physical Review Letters 61(7):802-805.

Canough, Gay E.
R. Ammar, R.C. Ball, S. Banerjee, P.C. Bhat, P. Bosetti, C. Bromberg, G.E. Canough, T. Coffin, T.O. Dershem, R.L. Dixon, H.C. Fenker, S.N. Ganguli, U. Gensch, P. Girtler, A.T. Goshaw, F. Grard, A. Gurtu, C. Hamilton, V.P. Henri, J.J. Hernandez, J. Hrubec, M. Iori, L.W. Jones, D. Kuhn, D. Knauss, I.D. Leedom P. Legros, J. Lemonne, H. Leutz, X. Liu, P.K. Malhotra, J.M. Marraffino, G.E. Mendez, R. Miller, T. Naumann, A. Nguyen, H. Nowak, P. Pilette, J. Poirier, A. Poppleton, R. Raghavan, K. Rasner, S. Reucroft, W.J. Robertson, B.P. Roe, A. Roth, M. Senko, W. Struczinski, A. Subramanian, M.C. Touboul, B. Vonck, L. Voyvodic, J.W. Waters, M.F. Weber, M.S. Webster and C. Zabounidis. 1988. D-Meson Production in 800-GeV/c pp Interactions. Physical Review Letters 61(19):2185-2188.

Cason, Neal M.
M.G. Rath, N.M. Cason, J.R. Bensinger, J.M.
Bishop, N.N. Biswas, J.K. Busenitz, A. Etkin, K.J. Foley, M.R. Fortner, L.R. Fortney, J. Goo, A.T. Goshaw, V.P. Kenney, L.E. Kirsch, M.A. Kramer, S.J. Lindenbau, R.S. Longacre, W.A. Love, E. McCrory, T.W. Morris, H. Piekarz, J. Piekarz, E.D. Platner, R.A. Poster, W.J. Robertson, R.C. Ruchti, A.C. Saulys, W.D. Shephard and P. Zogrofou. 1988. Evidence for t(1460) Production in π^-p Interactions at 21.4 GeV/c. Physical Review Letters 61(7): 802-805.

Kenney, V. Paul

See under Cason, Neal M. 1988. Physical Review Letters 61(7):802-805.

LoSecco, John M. J.M. LoSecco. 1988. Comment on Neutrino Observations of SN1987A. Page 100 in, G.V. Domogatsky, F.F. Khalchukov, V.A. Kudryavtsev and O.G. Ryazhskaya, eds.,

Proceedings of the 2nd International Symposium on Underground Physics, Baksan

Valley, USSR. Nauka, Moscow, USSR.

J.M. LoSecco, et al. 1988. Neutrino
Physics with IMB. Page 64 in, G.V.
Domogatsky, F.F. Khalchukov, V.A.
Kudryavtsev and O.G. Ryazhskaya, eds., Proceedings of the 2nd International Symposium on Underground Physics, Baksan, Valley, USSR. Nauka, Moscow, USSR.

C.R. Bratton, J.M. LoSecco, et al. 1988. Recent Results from IMB. Page 162 in, G.V. Domogatsky, F.F. Khalchukov, V.A. Kudryavtsev and O.G. Ryazhskaya, eds., Proceedings of the 2nd International Symposium on Underground Physics, Baksan Valley, USSR. Nauka, Moscow, USSR.

McGlinn, William D. See under Rose, Samir K. 1988. Physical Review D 38:2335.

Piekarz, Jadwiga

See under Cason, Neal M. 1988. Review Letters 61(7):802-805. Physical Physical

Poirier, John A.

See under Canough, Gay E. 1988.
Review Letters 61(19):2185-2188.

Rath, Matthew G.

Physical See under Cason, Neal M. 1988. Review Letters 61(7):802-805.
Ruchti, Randal C.

See under Cason, Neal M. 1988. Physical Review Letters 61(7):802-805.

Shephard, William D.

See under Cason, Neal M. 1988. Physical Review Letters 61(7):802-805.

COLLEGE OF ENGINEERING

Aerospace and Mechanical Engineering

Mueller, Thomas J. T.J. Mueller. 1988. The Role of Smoke Visualization and Hot-Wire Anemometry in the Study of Transition. Pages 195-227 in, W.K. George and R. Arndt, eds., Advances in Turbulence. Hemisphere Publishing Corporation, New York, New York. Yang, Kwang-tzu

H.O. Yang, K.T. Yang and J.R. Lloyd. 1988. Rotational Effects on Natural Convection in a Horizontal Cylinder. AIChE Journal 34(10):1627-1633.

Civil Engineering

Kirkner, David J.

D.J. Kirkner and H. Reeves. 1988. Multicomponent Mass Transport with Homogeneous and Heterogeneous Chemical Reactions: Effect of the Chemistry on the Choice of Numerical Algorithm. 1. Theory. Water Resources Research 24(10):1719-1729.

H. Reeves amd D.J. Kirkner. 1988. Multicomponent Mass Transport with Homogeneous and Heterogeneous Chemical Reactions: Effect of the Chemistry on the Choice of Numerical Algorithm. 2. Numerical Results. Water Resources Research 24(10): 1730-1739.

Electrical and Computer Engineering

Bandyopadhyay, Supriyo S. Bandyopadhyay. 1988. Fluctuations in the Optical Spectra of Disordered Microstructures due to Quantum-interference Effects. Physical Review B 38(11):7466-7473.

COLLEGE OF BUSINESS ADMINISTRATION

Marketing Management

Gaski, John F. J.F. Gaski. 1988. Toward a Generally Accepted, Conceptually Coherent Channel Power Lexicon. Pages 256-259 in, S. Shapiro and A.H. Walle, eds., Marketing: A Return to the Broader Dimensions. American Marketing Association, San Diego, California.

LAW SCHOOL

Dutile, Fernand N. F.N. Dutile. 1988. The Law of Higher Education and the Courts: 1987. The Journal of College and University Law 15(2):87-148.

Fick, Barbara J.

B.J. Fick. 1988. Book Review: Academics in Court. The Journal of College and University Law 15(2):237-245.

HELEN KELLOGG INSTITUTE FOR INTERNATIONAL STUDIES

LeMay, Albert H. A.H. LeMay. 1988. Ramón Del Valle-Inclán en las revistas Cosmopolis Y Europa. Revista Chilena de Literatura 31:157-167.

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