In Memory of...

The Mathematical Sciences Department wish to honor
the contributions made by faculty members that have passed on.
Their efforts will be remembered and they are truly missed.

Yuri A. Abramovich (1945 - 2003)

Elaine Alton (1925 - 2006)

J. Conrad Crown (1921 - 2007)

Bernard B. Morrel (1940 - 1997)

W. Howell Pugh (1949 - 2008)

Anna K. Suter (1907 - 1982)

Krzysztof P. Wojciechowski (1953 - 2008)

In Memory of Yuri A. Abramovich (1945 - 2003)

Yuri A. Abramovich died on February 5, 2003, at the age of 57, after a valiant four-year battle with cancer. His untimely passing greatly saddened many people. He will be missed not only by his family and closest friends and colleagues but also by many mathematicians and scientists around the world.

Scientifically, Yuri came out of the famous Russian school in Functional Analysis founded in the early 1940s by the distinguished Russian mathematician and economist (and Nobel Prize winner in Economics), Leonid Kantorovich. Yuri completed his Ph.D. degree in 1972 at Leningrad State University (now St. Petersburg State University) under the supervision of Boris Vulikh, a noted mathematician and student of Leonid Kantorovich.

Yuri's early work in Functional Analysis dealt with the geometric and lattice structures of Banach spaces. In his early academic career he collaborated with Gregory Lozanovsky, another important mathematician from the Kantorovich school. Lozanovsky's premature death in 1976, at the age of thirty-nine, left a profound impact on Yuri. Yuri went on to produce world-class research in the field of Banach lattices. By the age of thirty-five Yuri was universally recognized as a leader in the mathematical field of functional analysis.

Yuri was an independent thinker who intellectually challenged his students and those with influence over the lives of others. He questioned the absolute authority of the communist party, and applied to emigrate to either Israel or the United States. His application was rejected by the Soviet government and he became persona-non-grata. Yuri remained a "refusenik" for approximately ten years, enduring much hardship as unemployable throughout that period. To survive the days he tutored and taught some high school students. He polished his English, and continued to work tirelessly on his mathematics research, writing papers, publishing his work and communicating with other research mathematicians around the world. With the transfer of power in the Soviet Union to Mikhail Gorbachev in 1985 and the implementation of his new policies, the door opened for many people to leave. On April 12, 1988, Yuri Abramovich and his family arrived in Indianapolis, and by the Fall of 1990 he was promoted to the rank of Full Professor in the IUPUI Department of Mathematical Sciences. He was an engaging and an animated colleague who was passionately devoted to his profession as a mathematics researcher and as an educator to his students. For a six-year period, until 1999, he served the department as the dedicated Director of Graduate Programs, working to improve the learning environment of our graduate students. Shortly after his arrival at IUPUI, he teamed with IUPUI Professors Roko Aliprantis and Owen Burkinshaw, and together they formed the leading mathematical school in the world on Banach lattices and ordered structures. This group published many scientific papers in top mathematical research journals.

Besides working with his colleagues at IUPUI and in the United States, Yuri collaborated with many scientists from around the world, including China, France, Germany, Greece, Ireland, Italy, Japan, Poland, Spain, the Netherlands, and Russia. Yuri's contributions to mathematics are of lasting value and his name has already been associated with many important scientific discoveries.

In July of 1999 Yuri Abramovich was diagnosed with cancer, but he maintained the entire spectrum of his activities. He continued his teaching and his research activities and completed five new papers and numerous mathematical reviews. He continued with the training and the mentoring of his two Ph.D. students and was happy to see them to their graduation. Yuri was also happy to see his two new graduate texts (written jointly with Roko Aliprantis) An Invitation to Operator Theory and Problems in Operator Theory published by the American Mathematical Society. His lifetime scientific work includes a total of five books and monographs and a hundred research papers.

Beyond the realm of mathematics, Yuri left the legacy of his unique engaging personality. His impish sense of humor, optimism, and amazing intelligence were a delight to his numerous friends and colleagues. He was genuine, warm, generous and extremely loyal to the people he loved. He connected strongly with his students, many of whom became his friends. He devoted his life entirely to his family, to his students, and to the advancement of our scientific knowledge. Yuri is survived by his wife Alla and his two daughters, Julia and Jane.

The Department of Mathematical Sciences at IUPUI was fortunate to have him in its ranks and he will be missed by the IUPUI community at large. To commemorate his legacy as a colleague, as a mathematician, and as an educator, the Department has established the Yuri Abramovich Memorial Scholarship Fund.

In Memory of Elaine Alton (1925 - 2006)

Always willing to dedicate her time outside of the classroom and considered a guiding influence to many students and instructors at IUPUI, Dr. Elaine Alton was an excellent teacher. She came to IUPUI as an Assistant Professor in 1964, teaching and serving the Department for many years until retiring as a Professor in 1990.

Throughout her career, she was active in a number of professional organizations including the Indiana Regional Mathematics Consortium (IRMC), the American Mathematics Association of Two-Year Colleges (AMATYC), and the Indiana Council of Teachers of Mathematics (ICTM), as well as serving as a member of the North Central Accreditation Team. She assisted ICTM with the writing of state-wide high school math contests and made frequent presentations to high school and middle school mathematics teachers at ICTM conferences. She was often invited to be a part of the National Council of Teachers programs throughout the United States, providing workshops on various topics related to the teaching of mathematics. These were "hands-on" workshops, offering ideas and ways for teachers to bring mathematics into the classroom.

Elaine inspired many students throughout the years, including Lucreda Hutton, as Lucreda taught as a part-time instructor and worked to finish her degree. Lucreda eventually became a tenure track faculty member at IUPUI and the pair of them often worked as a team. Elaine and Lucreda were "unofficial liaisons" with the School of Education, often supervising high school student math teachers and teaching elementary education students required mathematics courses.

Elaine also worked for several years with Judy Gersting and Joe Kuczkowski on math education topics-jointly authoring several articles intended to improve elementary and secondary classroom experiences for teachers. She was often sought after to lend her expertise to help elementary school teachers improve their teaching of mathematics. In 1984, she received the Golden A. Flake Award for Excellence in Academic Counseling.

Dr. Elaine Alton was born and raised in upstate New York and was the first member of her family to attend college. She received an A.B. in Mathematics from the State University of New York at Albany in 1946, and went on to earn an M.Ed. in Counseling and Guidance from St. Lawrence University in 1951, an M.A. in Mathematics from the University of Michigan in 1958, and a Ph.D. in Mathematics from Michigan State University in 1965. After earning her A.B. degree, she briefly taught high school in New York, and then became an Associate Professor of Mathematics at Ferris State College in Michigan before coming to Indianapolis in 1964.

Dr. Alton died of natural causes on August 11, 2006 at the age of 80. She had one sister and one brother. Her sister died many years ago and left two young adult sons. Elaine was always there for her several nieces and nephews-both emotionally and financially. After retiring, she moved to Big Rapids, Michigan to be near her two nephews. She was very close to her brother, Charles, and his wife, Ellen. She enjoyed spending holidays with her family, often traveling to Antwerp, New York, to spend the holidays with Charles and Ellen, as well as extended family members. Elaine's enthusiasm and dedication will long be remembered by those fortunate enough to have known her, especially the many students whose lives she touched.

In Memory of J. Conrad Crown (1921 - 2007)

A man of strong beliefs and convictions, Dr. J. Conrad "Connie" Crown was involved in many activities and he had a wide range of interests. His childhood home was just two short blocks from the beach, and he enjoyed water sports and collecting shells. He also enjoyed boomerangs and mushroom hunting. Connie was an avid cook and developed numerous recipes. He loved traveling all over the world-including Polynesia, the South Seas, the Caribbean and Europe. He also loved folk dancing, music and languages. His interest in the peace movement was evidenced by his involvement in a protest at Kent State University, and in 1969, because of his refusal to aid the Vietnam War effort, he eventually left the aerodynamics industry to become a Professor of Mathematics at IUPUI.

At IUPUI he developed a strong interest in numerical analysis (especially numerical solutions of differential equations), linear programming and operations research. He co-authored several mathematics textbooks on modeling and finite mathematics with Marvin Bittinger. He was also involved in research in the area of nutritional analysis.

Connie was well known and considered to be an "excellent instructor"-particularly in very large classes. He served as a course coordinator and developed several new courses in applied mathematics. He provided great service to the department, serving on various committees, as well as serving as the first graduate program director of the department. In this capacity, he showed great kindness toward new graduate students, leading and directing students to achieve their goals in higher education.

Dr. J. Conrad Crown was born in New York City and raised on Long Island. He received a B.S. in Aeronautical Engineering in 1943 from the Polytechnic Institute of Brooklyn. Following graduation, he worked as an aerodynamicist for the National Advisory Committee for Aeronautics at Moffett Field in Northern California and then for the Naval Ordinance Laboratory in White Oak, Maryland. While at NACA, he also served in the United States Navy and was a volunteer fireman. He earned an M.S. in 1962 and his Ph.D. in 1965 in Physics from the University of Connecticut while working as an aerodynamicist at United Aircraft Corporation, and later at Pratt & Whitney Aircraft.

Following his retirement in 1989, he moved to Seattle, Washington with his second wife, Linda, and lived there until his death. In Seattle, Connie continued developing nutritional recipes, analyzing voting systems, and working on the development of a phonetic alphabet.

Dr. Conrad passed away in Seattle, Washington, on January 26, 2007, at the age of 85. He left one brother, three children, two grandchildren and many dear friends and colleagues. He is certain to be missed by those who knew him!

In Memory of Bernard B. Morrel (1940 - 1997)

Dr. Bernard Morrel, Associate Professor of Mathematical Sciences, died suddenly on May 26, 1997. Bernie Morrel was born in Lynchburg, Virginia, on November 28, 1940. He attended Gillman Preparatory School and then the University of Virginia, where he received a B.A. in 1962, an M.A. in 1966, and a Ph.D. in 1968. He was appointed Assistant Professor at the University of Georgia the same year and served there until 1975. There he met his second wife, Judy, who took a course from him as a graduate student and declared him to be the best teacher that she had ever had. He then served as a Visiting Assistant Professor at Indiana University, Bloomington until 1977. He came to IUPUI as an Associate Professor in 1978 and served in this position until his death on May 26, 1997, with the exception of the year 1985-86, which he spent on sabbatical in Bloomington as a Visiting Associate Professor.

Bernie was well known among faculty and students as an excellent teacher. He served as the Course Coordinator for MATH 119 until his death, and, with Marvin L. Bittinger, he co-wrote, Applied Calculus, 2nd Edition, Addison Wesley, 1994. He served throughout his tenure on many departmental, school, and university-wide committees for promoting and planning good teaching and was always an advocate for excellence in this field. He also served on many other committees, including the Faculty Council in 1991-93, and once chaired the School of Science United Way campaign.

As a research mathematician, Bernie worked mainly in two areas: algebraic operator theory and non-abelian approximation. All of Bernie's work, but especially his work on algebraic operator theory, is characterized by elegance and a great simplicity of expression. Algebraic operator theory seeks to examine a number of relationships and concepts in operator theory defined by equations. Bernie seemed to have a knack for drawing out unsuspected consequences from the simplest of equations.
In non-abelian approximation the idea is to examine a variety of approximation questions about operators on Hilbert space. This is in contrast to the abelian approximation, which is the classical approximation by functions. This was an area of operator theory that arose from some questions posed by Paul Halmos in the 60's and was given momentum by the

Romanian school in the 70's. Bernie introduced John Conway to the subject and John Conway became Bernie's principal collaborator in this area. Their work included a Memoir of the American Mathematical Society written with Domingo Herrero. But probably Bernie's best work in this circle of ideas was done with Constantin Apostol. They obtained an approximate Jordan model for all operators. John Conway looks upon it as one of the two most important results in the area, and it formed the basis for all the work that he and Bernie did together.

Bernie contributed to his discipline through the books he edited and the several conferences he organized and directed. With John B. Conway he edited three books: A Survey of Some Recent Results in Operator Theory, I, Pittman Research Notes in Mathematics, Vol. 171; A Survey of Some Recent Results in Operator Theory, II, Pittman Research Notes in Mathematics, Vol. 171; and Proceedings of the Eighth Great Plains Operator Theory Conference, Pittman Research Notes in Mathematics, Vol. 225.

Bernie's participation in activities in his church, Second Presbyterian, was very important to him. He worked closely with the minister, was the moderator of the board of deacons and was ordained an elder. At his suggestion, the church set up a small grants program. Other churches applied to them for a grant for anything from a new roof to startup funds for a food pantry.

In Memory of W. Howell Pugh (1949 - 2008)

W. Howell Pugh 58, beloved partner of Skip Sauvain, passed away January 18th, 2008 at St. Vincent Hospice after a valiant struggle with lymphoma.

Howell was born in Memphis, Tennessee to Walter Howell and Katye Read Pugh on May 12th, 1949, the youngest of three children. He graduated from Central High School and left the south for Macalester College in St. Paul, Minnesota. After graduation he earned his FSA (Fellow Society of Actuaries) and worked most of his entire career in the insurance industry. His early work took him to Louisville, KY, and Binghamton, NY. During the last 30+ years he was a Vice President with State Life Insurance in Indianapolis, IN; First Penn Pacific Life Insurance, Oak Brook Terrace, ILL; Lincoln Re & Swiss Re of Ft. Wayne, IN. For the past five years he was President of Howell Pugh Consulting in Indianapolis; and served as an adjunct professor at Indiana University Purdue University at Indianapolis. Howell was an officer in the Society of Actuaries, a chairman and speaker at many annual conferences and a respected expert on Pandemic Flu Epidemic.
He was a volunteer with the American Red Cross and Tails A Waggin pet rescue society.

Hal was pre-deceased by his mother Katye Read Pugh and his mother-in-law Margaret Rigdon Sauvain. He leaves in deep mourning his father Walter H. Pugh, Denver, CO; sisters Beverly P. Smith (Sidney), Denver, Co; and Cheryl P. Groesbeck, Shelton, CT; nephews Steven (Debbie) Smith; Casey (Laura) Smith and Walt Smith, all of Denver, CO. In addition to Skip he is survived by his dog Buddy, his ever-faithful friend and shadow, and feline pals Buster, Marigold and Isabelle.

His was a quietly passionate soul but intensely involved in the real matters of the world. A friendly intellectual, lover of books, obscure films and their directors, and as his best friend and college roommate recently said "a thoroughly decent human being." Truer words were never spoken; even to his detriment he stood for what he thought and felt was right. Never the spotlight seeker he lived life easily and always in the moment. He loved to devour important newspapers, cook, garden, linger in art museums, and, of course, take Buddy for daily walks.

Howell lived for 16 years with non-Hodgkin's Lymphoma. For the last six months he was supported by a second family of dedicated, intelligent and compassionate nurses at the 6 South Oncology Unit of St. Vincent Hospital. To them and to Dr. Robert Manges, goes our profound gratitude. You gave us security and respect on the difficult roller coaster of cancer treatment.

"Never forget that nothing in this world is as important as loving others and knowing you are loved..."

He was very proud of this program, which is still active and effective. He was also in charge of the ushers. He was on the Whitewater Valley Presbytery committee on the ministry, which made him a liaison for churches hunting for a new minister.

Bernie's accomplishments and dedication will be long remembered by those of us fortunate to have known him as colleague and friend.

In Memory of Anna K. Suter (1907 - 1982)

Anna K. Suter first served on the faculty of the Department of Mathematical Sciences beginning in 1941, at the Indianapolis Purdue Extension, long before the 1969 merger of Indiana and Purdue Universities into IUPUI. She devoted her entire career to the Indianapolis Campus, and she was well known for her devotion to her students and her commitment to the betterment of the Department. She retired from active teaching in 1973 and established the Anna K. Suter Award. At the time of her death in 1982, her entire estate was left to the Department of Mathematical Sciences to fund the scholarships in perpetuity.

In Memory of Krzysztof P. Wojciechowski (1953 - 2008)

Krzysztof P. Wojciechowski was born in Szczecin, Poland in 1953.

Dr. Krzysztof Przemys.aw Wojciechowski, Professor of Mathematical Sciences, was born in Szczecin, Poland on October 15, 1953. From an early age he displayed a great affinity for learning; reading in his youth numerous books on travel, history, mathematics, and many other subjects, all at an astounding pace. One book he encountered was a training manual written by a professional body builder, which led to a lifelong passion for exercise and, in particular, for judo. This passion slowly transformed a scrawny Krzysztof, often picked on as a child, into an imposing athlete; his dedicated training culminating in a first place victory at the World Master Athlete Judo Championships (for over 45 year olds) in the summer of 1999 in Welland, Canada.

After finishing high school in Szczecin, Krzysztof moved to Pozna., about 150 miles to the southwest, for his undergraduate studies. There his love of mathematics, as well as of judo, deepened and he met his future wife El.bieta who shared his pursuits. Their daughter, Agnieszka, was born in January of 1978 while Krzysztof was serving a mandatory term in the Polish army. Shortly thereafter, the family relocated to Warsaw where Krzysztof began his graduate studies at the University of Warsaw.

In Warsaw, Krzysztof found his main mathematical interests to be in differential geometry, topology, and analysis; in particular, the mathematics involved in and inspired by the Atiyah-Singer index theorem. Krzysztof and Elzbieta's son, Radoslaw, was born in January of 1980 while Krzysztof worked on his dissertation under advisor, Bogdan Bojarski. Around this time, Krzysztof began his collaboration with Bernhelm Boo?-Bavnbek at Roskilde University in Denmark. The relationship would last and they jointly authored many papers and the book "Elliptic Boundary Problems for Dirac Operatorsi", published in 1993 and now a standard reference for the index theory of boundary value problems. He received his Ph.D. in 1982 from the Polish Academy of Sciences.

In the fall of 1987, Krzysztof moved to the United States to accept a visiting position at Stony Brook. His family followed in the winter of 1987, and they remained at Stony Brook until the end of the spring semester of 1988. In the fall of 1988, the family settled in Indianapolis where Krzysztof accepted a visiting position in the IUPUI Department of Mathematical Sciences. He became an Assistant Professor in 1989 and was eventually promoted to Professor of Mathematical Sciences in 2000. Krzysztof was very involved in the department, both in organizing conferences and workshops and in teaching undergraduate and graduate courses. He was very honest and outspoken, never afraid to express an opinion. He remained active in his research; his generosity and enthusiasm for mathematics drawing new collaborators from all over the world. As one co-author phrased it, it was a privilege to see "mathematics being manipulated with the same easy uninhibited joy that one naturally admires when seeing a musician play."

While working on mathematics and judo, Krzysztof traveled extensively, visiting, amongst other places, Korea, Japan, Italy, Columbia, Singapore, and Australia. He was very passionate about literature, politics, movies, the arts, and most of all music which led to a consuming fervor for stereo equipment and the drive to build the "perfect system." No matter what hobby he occupied himself with Krzysztof would develop an encyclopedic knowledge on the subject and pursue it with child-like enthusiasm and joy. But always, he was an extremely loving husband and father, compassionate and generous, never hesitating to give of himself when able.

In the fall of 2004, following what ultimately turned out to be painful trips to Australia and Poland, Krzysztof was diagnosed with stage IV adenocarcinoma, non-small cell lung cancer. The average life expectancy of a patient with this diagnosis is six months to a year and a half. Despite this, Krzysztof lived for nearly four years during which he enjoyed many good times with friends and family. He remained active in the department, teaching several graduate courses and organizing a conference in the spring of 2007. He was also well enough to attend a conference held in his honor in May 2005 near Roskilde, Denmark: "Krzysztof Wojciechowski - 50 Years." As usual, he was the life of the party every night. His courage and determination to continue did not wane even at the end. He died on the afternoon of June 28, 2008 and is missed severely by those who knew him.