# Table of Contents



**Department of Mathematics Home Page**

---

## Craig A. Tracy becomes The Department Chair

There has been a change in the administration of the Department since this past summer. Effective July 1, 1994, Professor Craig A. Tracy was appointed as the Chair of the Department. He then appointed Professor G. Thomas Sallee as the Vice Chair for Undergraduate Affairs, and Professor Joel Hass as the Vice Chair for Graduate Affairs.

The Department wishes to express its warm gratitude to the Outgoing Chair Professor Henry Alder and Former Vice Chair Professor Angela Cheer for the superb jobs they did for the Department during the past two years. The period they served was a particularly difficult one because of the severe budget situation and uncertainty in the campus administration. Alder and Cheer not only successfully maintained the daily departmental business, but also won admiration, support and confidence from the higher administration. The Department remembers them as the administrators who served it well when no one else wanted to assume the responsibility given to them.

**Table of Contents**

## Roger Wets wins Dantzig Prize in Optimization

This year's George B. Dantzig Prize was awarded to Professor Roger J.-B. Wets for his leadership role in the field of stochastic optimization, and his pioneering work in the development of the approximation theory for infinite dimensional problems. The Dantzig Prize is an award sponsored by the Society for Industrial and Applied Mathematics and the Mathematical Programming Society for original research having major impact on the field of optimization. In the optimization field it is the highest honor that is awarded. The specifications of the Dantzig Prize say that the impact should be both at the theoretical and computational level, and should have significant implications as far as practical applications are concerned.

The official citation reads: "Roger J.-B. Wets is recognized as the leading figure in the area of stochastic programming. His research on the theoretical underpinnings of the subject includes fundamental studies of the geometry of the solution set, the properties of the value function, conditions for existence and stability of optimal solutions, and the structure of dual problems. One of the key insights is that stochastic programs have an additional multiplier type that does not arise in deterministic models. On the algorithmic side, his contributions include the basic and fundamental L-shaped method, a very efficient method for the simple recourse problem, and the recent progressive hedging algorithm. These methods have been used effectively in a variety of applications, and their use is expanding as computational power to handle such large models grows. The last method mentioned exhibits considerable scope for exploiting parallelism. Through the analysis of statistical properties of optimization problems depending on random variables, including generalized laws of large numbers, he has laid a foundation also for solution methods that rely on sampling. One of the techniques he devised for approximating infinite-dimensional problems (the concept of epi-convergence) is emerging as a basic tool in areas like semi- infinite programming and optimal control with complicated dynamics. He has also been very active in applications ranging from the environment (lake pollution) to finance (asset/liability management)."

**Table of Contents**

## Guggenheim Fellowship awarded to J. Blake Temple

A pleasant shock wave hit the Department earlier this year. The John Simon Guggenheim Memorial Foundation has announced the selection of 147 artists, scholars, and scientists from among 3,157 applicants for Guggenheim Fellowship. Guggenheim Fellows are appointed on the basis of unusually distinguished achievement in the past and exceptional promise for future accomplishments. There are only four mathematicians among this year's fellows, including Professor J. Blake Temple.

Temple was awarded the Fellowship for his research on multi-dimensional shock waves and gravitational collapse in general relativity. He gave the following message to the *Newsletter* upon the Editor's request:

"I would assess the work as follows: we have an exact shock wave solution of the Einstein equations modeling an explosion, and a general theory that describes how to attach any static, spherically symmetric solution of the Einstein equations to the Robertson-Walker- Friedmann solution across a shock wave interface. This procedure removes the singularities at r = 0 when they appear in the static, outer solution. The exact solution is an explicit solution of these equations that applies when the outer solution is a static, singular isothermal sphere. In this solution, the big bang in the R-W-F solution occurs as the shock wave blasts out of the origin, and thus we have a scenario by which the big bang begins with a shock wave explosion. It is remarkable that we can assign an arbitrary sound speed to the outer fluid, and the shock moves at a finite speed less than the speed of light, all the way back to the initial big bang. Christodoulou [a Princeton professor and a 1993 MacArthur Fellow who is considered to be the authority of general relativity] gave us a scenario for star formation that parallels our exact solution. My impression, however, is that the real astrophysicists do not believe that this suggests a new model for the universe, but I have not heard an

absolutely definitive reason for this yet! By the way, the young people [working in the field] have been extremely interested [in my work]," he then added, "but please don't publish this!"

The other three mathematicians among this year's Guggenheim Fellows are: Senior Professor Joan S. Birman of Columbia University (knot theory), Fields Medalist Michael H. Freedman of UC San Diego (4-dimensional topology), and the 1993 Cole Prize winner Karl Rubin of Ohio State University (number theory). We are proud of Temple being counted as one of the superstars of the nation, and wish his new waves of research propagate widely to the mathematical world. Congratulations, Blake!

**Table of Contents**

## NSF Career Advancement Award made to Abigail Thompson

Professor Abigail Thompson received an NSF Career Advancement Award this year. The Award has been created recently by the National Science Foundation, which is committed to enhancing the current rate of participation of women in science and engineering careers, in general, and as active participants in all of its programs. The goal of this effort is to support activities that can expand a promising applicant's research career potential. For example, investigators may seek support for developing new skills in an area that will expand their research programs. With this grant, Thompson will conduct research in the border area between low-dimensional topology and geometry, using the concept of thin position. This is a new and extraordinarily useful tool in knot theory, and its geometric analogue has great promise. Most interesting is the close relation this idea suggests between knot theory and piecewise linear minimal surface theory. The grant will make it possible for her to learn minimal surface theory, which she plans to apply to her own research project, knot theory.

**Table of Contents**

## Fulbright Award goes to Washek Pfeffer

Professor Emeritus Washek F. Pfeffer has received a Fulbright grant to lecture at Charles University in Prague during the 1994/95 academic year. Last fall he published a research monograph titled The Riemann Approach to Integration from the Cambridge University Press.

**Table of Contents**

## A Large Number of Research Grants awarded in 1993- 94

Our faculty members have been very successful in obtaining research support from outside the campus. The following is the list of extramural research grants received during the 1993 and 1994 fiscal years.

- Angela Cheer: National Science Foundation
- Joel Hass: National Science Foundation
- John Hunter: National Science Foundation
- Arthur Krener: Office of Naval Research and Air Force Office of Scientific Research

- Motohico Mulase: National Science Foundation
- Gerry Puckett: National Science Foundation and Lawrence Livermore National Laboratory
- Albert Schwarz: National Science Foundation
- David Stuart: National Science Foundation
- Blake Temple: National Science Foundation, Office of Naval Research, and Guggenheim Foundation
- Abigail Thompson: National Science Foundation and Sloan Foundation
- Craig Tracy: National Science Foundation
- Roger Wets: National Science Foundation

**Table of Contents**

## Distinguished Teaching Award goes to T. Sallee

Professor G. Thomas Sallee received a 1994 Academic Senate Distinguished Teaching Award.

The official citation by Professor Stephen Whitaker, Chair of the Committee on Distinguished Teaching Awards, reads:

Professor Tom Sallee, Department of Mathematics, has taught mathematics at UC Davis for nearly three decades. During that time he has guided the passage of many students through their initial fears of advanced mathematics to successful careers as teachers and users of concept of mathematics. From his classes there have emerged a continuous stream of students who have gained a degree of self-confidence that might well have meant the difference between success and failure. This has come both from Professor Sallee's exceptional teaching skills and from his deep concern for the welfare of his students. He has served as their coach, their mentor, their teacher, and their concerned friends. His devotion to the entire mathematics program is evident by the fact that he is the only tenured or tenure track faculty member to receive the annual Departmental Award for the "Best Teacher of Lower Division Mathematics." ...

In addition to his involvement in the teaching of mathematics at UC Davis, Professor Sallee has made significant contributions to the teaching of mathematics at the K-12 level. This is the effort that began in the early 1970s and led to the co-authorship of the book, *Make It Simpler: A Practical Guide for Teaching Problem Solving*, which was directed toward mathematics instruction in grades 5-7. Since that time he has participated in the Northern California Mathematics Project, he has been the co-chair of the Joint UC/CSU Task Force on Reform on Remedial Mathematics Education, and he is currently the principal investigator of a National Science Foundation project to redesign the standard Algebra I, Geometry, and Algebra II sequence that is followed throughout the country in the high schools.

Professor Sallee has provided distinguished teaching to literally thousands of students on the Davis campus, and his devotion to art of good teaching has spread infectiously far beyond the campus.

**Table of Contents**

## Carole Hom wins Teaching Award

Dr. Carole Hom, Lecturer of Mathematics, won the 1994 Excellence in Teaching Award of the Academic Federation. This is a considerable honor because only at most one award is made each year. A reception hosted by the Department followed her lecture, Calculus, Modeling, and Teaching: Whaddya Do After You

Get `The Answer'?

**Table of Contents**

## Xun Jiang joins Davis as Research Assistant Professor

The eighth position of the Research Assistant Professorship at UC Davis has been filled with a numerical analyst Dr. Xun Jiang of the University of Maryland. He and Yingchen Li were classmates at the same college back in China.

**Table of Contents**

## Graduate Program

by Joel Hass, Professor of Mathematics and Vice Chair for Graduate Affairs

**Graduating students:** Five students received PhDs in the last academic year, three finishing students received Master's degrees and two received MAT (Master of Arts in Teaching) degrees. Congratulations to them all.

Wendy Brunzie wrote a thesis in dynamical systems with Dmitri Fuchs titled "Dual Billiards." She will start a position at Montana State University this Fall. Daniel (Deej) Heath wrote a thesis on 3-dimensional manifolds with Abigail Thompson. Deej took a Postdoctoral fellowship in Japan, which he is spending at Nara Women's College in the Osaka area. These prestigious fellowships are run jointly by the National Science Foundation and the Japan Society for Promotion of Science. Lisheng Gao finished her doctoral work under the supervision of Michael Buonocore in the mathematical theory of magnetic resonance imaging. She is currently working in the Department of Radiology at UCD Medical Center. Adib Bagh, who worked with Roger Wets on optimization, wrote a thesis titled "Epigraphical analysis and convergence of sets." Sam Brannen, who worked with Don Chakerian in convex geometry, completed a thesis on "The Wills Conjecture." Kirk Wardlaw worked with Melven Krom in logic, and produced a thesis on "Numbers and propositional functions based upon generalized Boolean Rings." Adib, Sam and Kirk have each obtained a one-year lecturership at UC Davis.

Elyon Dekoven, Eric Schadt and Norman Walker finished their MA degrees this year. Elyon will be spending the coming year studying in Jerusalem, Israel. Eric has entered a combined MD/PhD program at UCLA. Norman has taken a position with the Learning Skills Center at UC Davis.

Jennifer Dance and David Schoenberger completed the MAT program. As always, demand for graduates of this program was very high. Jennifer has taken a teaching position at a private High School near Pasadena, and David will be continuing his studies at the University of Nevada at Reno.

**New students:** There were about eighty applicants to the graduate programs in Mathematics and Applied Mathematics, and we are expecting 18 new students this fall. The quality of applicants was high, as Davis' worldwide reputation continues to rise. This year's new students include holders of a National Science Foundation Graduate Fellowship and a Eugene Cota-Robles Fellowship. The breakdown by program is the following:

**Mathematics:** There were about 40 applications, and 16 students were admitted. Ten have accepted, of which eight are in the PhD program, one in the MA program, and one in the MAT program.

**Graduate Group in Applied Mathematics:** There were also approximately 40 applications, and 12 students were admitted. Eight have accepted.

Kurt Kreith, despite his retirement under VERIP III in 1994, has generously volunteered to coordinate recruiting efforts for the Mathematics graduate programs. Kurt's initial efforts include having faculty members give talks aimed at undergraduates at California colleges and universities that form the main recruiting pool for UC Davis. Input and suggestions on graduate recruitment are welcome from all of you - contact Kurt Kreith or me.

**Graduate Courses/Seminars:** In 1993/94 we continued our weekly research seminars on geometry/topology and analysis, as well as weekly colloquia in each of Pure Mathematics and Applied Mathematics. A new tradition that seems to be developing is that a large number of faculty and graduate students are going to Sudwerks, the local Davis brewpub, following the Friday afternoon analysis seminar. Presumably they are continuing the mathematical discussion over a meal of Sudwerks' famous sausages.

We had the first full year of our revamped class in the teaching of mathematics, MAT 390. Taught by Allan Edelson, this course gives new students an opportunity to get in front of their colleagues to demonstrate their teaching techniques, visit the classrooms of outstanding lecturers, have their lectures visited and critiqued and to hear presentations on aspects of teaching from various campus-wide experts. One new class will start this academic year, MAT 261A, Lie groups and their representations. In addition, there was a reorganization of some of the introductory courses in analysis. An ongoing effort is underway to examine all of the Department's offerings and to see how they fit in with the leaner environment that we are now facing.

The following advanced courses on current research areas were given in 1993-94:

- A. Schwarz - 2-dimensional conformal field theory
- D. Fuchs - Homological algebra
- A. Edelson - Elliptic PDE's
- C. Borges - Homotopy theory
- D. Cohen - Arrangements of hyperplanes
- M. Mulase - Infinite-dimensional geometry and integrable systems
- G. Puckett - Numerical methods for hyperbolic conservation laws
- B. Temple - General relativity and shock waves

**Jobs:** Demand for graduate students in Mathematics is coming from an increasing number of areas, as one would expect in a world where information based technology is exploding. Wall Street is hiring mathematicians to work with financial instruments called derivatives, whose complexity requires advanced mathematical skills. Other areas of mathematics are playing central roles in telecommunications, banking and insurance. In academics, the tight nature of state budgets has led to contractions at many of the large public universities, with a very tight job market resulting. Nationwide unemployment of new PhDs is at an all time high, and this has been recognized widely as constituting a crisis which the mathematics community must face. We are continuing to work on developing our placement ability in both academic and non-academic areas to help meet this problem. Entering and continuing students are given information on the job market and how their choice of fields may affect their prospects. We would like to hear from former Davis students about areas they work in where mathematical skills are applied. We would especially like to hear from those who work with companies who would be interested in receiving job applications from our graduates. In a future *Newsletter* we would like to summarize where our past graduate students have gone. Please write us a brief update if you would like to be included.

We hope that all of you will help the graduate program by talking about our Department to prospective graduate students. We have booklets which describe the Mathematics and Graduate Group in Applied Mathematics programs, and would be happy to make these available to any of you. If anyone has suggestions on how to improve some aspect of our graduate program, drop me a note, or send an e-mail to: hass@math.ucdavis.edu

**Table of Contents**

## W. K. Schwarze Scholarship awarded to Hopkins and Kimura

At the Annual Departmental Award Ceremony on June 2, 1994, the Department awarded the second William Karl Schwarze Scholarships in Mathematics. The scholarships were made possible by a bequest in the amount of $10,000 annually made to the Department by William Karl Schwarze who received his bachelor's degree in our Department and subsequently became a high school teacher of mathematics in San Francisco. Mr. Schwarze remembered his studies in the Department with such fondness that he decided to leave funds for students in our Department who demonstrates outstanding mathematical scholarship and exceptional promise of making a strong professional contribution as a mathematics teacher and educator at the pre-college or undergraduate college level. The presentations were made by Dr. Robert O. Crummey, then Dean of the College of Letters and Science. The two recipients of this award, each of whom received a $10,000 scholarship, were Michella R. Hopkins (MAT program, degree expected in June 1995), who plans to teach at the high school level, and Masato Kimura (PhD program, degree expected in June 1995), who plans to teach at the college level.

**Table of Contents**

## Several Undergraduate Students receive Departmental Honors

The University awarded 52 students a Bachelor's degree in Mathematics this past academic year. Among those who distinguished themselves were Departmental Citation winners James Primbs, John Miller and Thomas Kerruish. In addition, Primbs and David Peacock graduated with Highest Honors in Mathematics. The winners of the 1994 Spring Mathematics Contest are: Fei Teng Ma and Matt Nelson (First prize), Bradley Ballinger (Third Prize), and John Miller and Daniel Schlessinger (Honorable Mention). Congratulations to them all!

**Table of Contents**

## Gabriel J. Moreno wins the First Robert Lewis Wasser Prize

The first Robert Lewis Wasser Prize, in the amount of $500, was awarded at the Annual Departmental Award Ceremony by Dean Crummey. It was made from funds received from the endowment of the Robert Lewis Wasser Memorial Fund in excess of $10,000 named in memory of Robert Lewis Wasser, a junior student in our Department, tragically killed in a car accident on September 11, 1993. The prize is awarded to the winner of the Robert Lewis Wasser Memorial Contest conducted annually for freshmen and sophomore students at Davis. The first contest was held on May 5, 1994. Twenty-six students participated. The winner, who received

an almost perfect score on this very challenging contest, was Gabriel James Moreno, a sophomore student majoring in Electrical Engineering, but as a result of his success in this contest, giving serious consideration to majoring also in mathematics. The prize was handed to him by Mrs. Vera May Wasser, Robert's grandmother, the initiator and main contributor to the Fund. In addition, the following students received Honorable Mentions: Allen Tung, Larry Tzu-Chiao Chen, and Philip N. Truong.

**Table of Contents**

## Anne Haney and Nancy Heinschel win Many Awards

This year's Lawrence J. Andrews Prize of the College of Letters and Science was awarded to Nancy Heinschel, currently a senior student majoring in mathematics. The prize is awarded annually to the best junior student of the campus. She was also selected as one of the ten invited participants of the NSF Research Experience for Undergraduate Program at Oregon State University during the summer.

Anne Haney, also a senior student majoring in mathematics, received the Sierra Nevada Regional Soroptimist Training Award. She was an invited participant of the Mills College Summer Mathematical Institute held in Berkeley, and also won the University Farm Circle Marion Freeborn Re-entry Scholarship.

**Table of Contents**

## Kristina Dance named Undergraduate Peer Advisor

The newly created position of Undergraduate Peer Advisor in Mathematics has been filled with Kristina Dance, a senior student in mathematics. She offers advice to students on the mathematics curriculum and helps those who have difficulty talking to scary professors.

**Table of Contents**

## Miscellaneous News

Lawrence Marx was named as the Outstanding Instructor of Lower Division Mathematics Courses at the Annual Departmental Award Ceremony in June.

Janko Gravner put together a spectacular Mathematics Awareness Week in April. This is a nationwide event sponsored jointly by the American Mathematical Society, the Mathematical Association of America, and the Society for Industrial and Applied Mathematics. During the week, the UCD Bookstore offered a 10% discount on all mathematics books, thanks to the initiative of John Thoo. The Pi Mu Epsilon and Math Club organized movie and video shows and skits. There were also enjoyable and excellent talks by Tom Davis (Mathematics at Silicon Graphics), Rudy Rucker (Stalking Artificial Life), and Amelia Jones (Links and Knots). In the last talk, a video was presented, where all the audience felt dizzy looking into the hyperbolic world.

Motohico Mulase won the campus nomination for the 1993 Presidential Faculty Fellow Award. Each

university can nominate up to two faculty members for the half-a-million- dollar Fellowship. Mulase was on the short list consisting of 48 scientists from all the natural and social science disciplines, among which 15 scientists (including only one mathematician from Wisconsin), together with other 15 engineers selected separately, received the award from President Clinton earlier this year.

**Table of Contents**

## Message to the Alumni

by Henry Alder, Professor Emeritus and Former Chair

It was wonderful to receive so many responses from you, our alumni, in response to the Department of Mathematics' first issue of the *Newsletter*, sent to you last Fall. We were pleased to learn of the many successful careers you have entered and which you are enjoying. We are glad that so many of you felt that the preparation you received in our Department has prepared you well for these careers. Since many of you indicated that you would like to know what your friends are doing, all information which you supplied to us on your careers is included in the alumni news in this issue provided you checked in last year's "Alumni News and Update Forms" the item allowing us to use the "news about yourself and others" in the next issue of the *Newsletter*.

On June 18, 1994, we had a reception and buffet dinner for our bachelor degree recipients, continuing the tradition set by the first such event organized by Allyson Angus (now Stewart) and her parents at the time of her graduation in 1987. Following the model established by her, these events are now organized by our Department and Pi Mu Epsilon under the direction of Evelyn Silvia. This event has become very popular with our graduating seniors and their families, resulting this June in the largest attendance we have had so far. It has also become a tradition to have a graduating senior speak at this event. This year it was Stephen Messano, President of the Math Club. It was a very pleasant surprise to me that he presented me with a gift on behalf of the Math Club "for all I had done for undergraduate education in the Department."

A luncheon for graduate students who received their graduate degrees last year was held on June 9, 1994, in the Department under the direction of Joel Hass, Vice Chair for Graduate Affairs.

The Department suffered a grievous loss when Professor Albert C. Burdette died on May 27, 1994, at the age of 89. He joined the Department as one of its earliest members in 1936, along with Professor W. Berggren and Professor Edward B. Roessler, and retired in 1971. He was a highly regarded teacher and wrote two widely used texts for lower division mathematics courses; perhaps the most well-known at UC Davis was "An Introduction to Analytic Geometry and Calculus."

At the end of the academic year, five additional faculty members took early retirement, namely Professors G. Don Chakerian, Doyle O. Cutler, Kurt Kreith, Washek Pfeffer, and Howard Weiner. Clearly, the retirement of these distinguished members of our faculty represents a serious loss to our Department. A party honoring the achievements of these five retiring members was held on June 14, 1994 at the University Club in Davis. One or more speakers gave highlights of the many valuable contributions each of these five members had made to the Department, the campus, and the profession. To my complete surprise, after honoring these five, Professor David Mead made some very flattering comments on the occasion of my own retirement. Fortunately, two of the five retirees, Kreith and Weiner, have agreed to be recalled to teach during the current academic year. I will also continue to teach.

The new academic year just starting brings a number of changes in the administration of our Department,

namely beginning this Fall, Craig Tracy is the Chair. He has earned an enviable record in research, teaching, and service in the Department. It is a pleasure to know that the Department will be in good hands under his leadership.

We hope you find this *Newsletter* as valuable as you did the first one judging from your many enthusiastic comments, "I really enjoyed receiving the *Newsletter*" was a frequent comment. Another version was "The *Newsletter* is fantastic and informative! Please feel free to request contributions." We are very grateful to you for having been so helpful to us with your many suggestions and comments. We have been greatly encouraged by comments such as "My math degree has served me well and I wouldn't trade it for anything!" These comments will provide a strong incentive to us to keep our curriculum so as to be of maximum benefit to our students.

**Table of Contents**

## Alumni News

compiled by Lynda Jones

**Lisa C. Allen** (BS 1989) is President/Owner of ALLENCO Inc., a commercial general contractor, in Sacramento.

**Tamara Biermann** (BS 1993) is working towards a multiple subject credential at UC Davis.

**Samson Cheung** (PhD 1989) won the 1994 Ames Honor Award of the National Aeronautics and Space Administration (NASA). Congratulations, Dr. Cheung!

**Kevin Christian** (BS 1987) is an operations research consultant with Applied Decision Analysis, Inc., at Menlo Park.

**Jacqueline Coomes** (BS 1993) is a full-time education student at St. Martin's College in Lacey, WA.

**Steven M. Day** (MA & MAT 1990) is a mathematics instructor at the Agricultural Technical Institute of Ohio State Univ. at Wooster, OH.

**Teresa Dyer** (BS 1990), now Grindy, is a mathematics teacher at McKay High School in Salem, OR.

**Gennis Emerson** (BS 1990) is an associate instructor at Indiana Univ., a PhD student in computer science working on machine learning.

**Pascasio Felisilda** (BS 1988) is a programmer for the California Highway Patrol, Sacramento, and is going to McGeorge School of Law in the evenings.

**Richard Fielding** (BA 1989) is a part-time lecturer at CSU Hayward.

**Andrew Flessel** (BS 1985) is a financial analyst at Hewlett-Packard Co. in Santa Clara.

**Michael Gardetto** (BS 1992) is a mathematics teacher and tennis coach at Placer High School in Auburn.

**Susanna Garrod** (MAT 1988), now Garrod-Crawford, is an optometrist on Saturdays in Danville and a mathematics instructor on weekdays at Sacramento City College.

**Sarah Gertmenian** (AB 1992) is a mathematics teacher at Marriagua Secondary School, St. Vincent, West Indies.

**David Hall** (BS 1985) is a senior accountant at Merle West Medical Center.

**Michael S. Harrington** (AB 1992) is an actuarial analyst at the Fireman's Fund Insurance Co. in Novato.

**Mark D. Hilton** (BS 1982) is a doctoral student at Indiana Univ. School of Public and Environmental Affairs, after being a US Naval Officer, engineering design technician, and technical change manager at Amdahl Corp.

**Aaron Klebanoff** (PhD 1992) is an assistant professor of mathematics at Rose- Hulman Institute of Technology in Terre Haute, IN.

**Virginia Lau** (BS 1990) is a project engineer at Dames and Moore Environmental Engineering in Denver, CO.

**Carolyn Q. Luu** (BS 1992) is an MAT student at the Univ. of San Francisco.

**Ho Nguyen** (BS 1992) is a mathematics teacher at Balboa High School in San Francisco.

**Edwin Reed** (MAT 1989) is a mathematics teacher at Dixon High School.

**Genele G. Rhoads** (MAT 1992) is a part-time instructor at Napa Valley College and Solano Community College.

**Reuben Spake** (PhD 1986) is a visiting instructor at Solano College.

**Marjorie Tan** (BS 1990) is a word processing technician at the Department of Corrections, Paroles, in San Francisco.

**Amin Tanumihardjo** (BS 1989) is a graduate student at Penn State expecting a PhD in number theory in 1995.

**Alex Taurke** (MAT 1991) is a part time instructor at Monterey Peninsula College; an adjunct faculty at Embry Riddle Aeronautical Univ.; and an editorial assistant at Computer Society Press.

**Bethanne Telford**, now Hinkle, is a technical staff at the ARGO Systems, Inc. in Sunnyvale.

**Karen Wootton** (MAT 1990) is a mathematics instructor at Indiana State Univ.

**Wei-Chi Yang** (PhD 1988) is an assistant professor at Radford Univ., Radford, VA.

**Table of Contents**

The Department of Mathematics Newsletter is edited by Motohico Mulase, with contributions from Henry Alder, Angela Cheer, Joel Hass and John Thoo, and is published by:

**Department of Mathematics**
**University of California**
**Davis, CA 95616-8633**
**Tel.: (530) 752-4887**

Table of Contents