A f t e r m a t h

Challenging Times
by Aaron Bertram

Year two of the Great Recession was not as bad as it could have been. Dire predictions of massive budget cuts from the legislature did not materialize. Still, the accumulated cuts (percentage-wise) to the base budget of the math department over the past two years are in the double digits. This is, needless to say, a massive challenge, but thanks to some planning and some good fortune, the math department has emerged without too much short-term damage. How we fare in the long term is in the hands of the legislature and the administration. Some of the "fixes" (larger class sizes, heavy reliance on money tied to extra enrollment) available to the department will stress the system and need to be addressed. We cannot just wipe our brows, declare that we survived the storm, and go on as though nothing happened. And yet I fear that this is what our leaders are hoping to do.

On a more positive note, the math department hit the trifecta this year in hiring in Applied Mathematics. Three new faculty: Yekaterina Epshteyn, Fernando Guevara-Vasquez (yes, our Fernando!), and Christel Hohnegger all accepted our offers and will join us in the Fall as Assistant Professors (tenure track). These are our first successful applied math hires at the tenure track level since I've been chair, and I know my colleagues are excited to finally get some "new blood" into the group.

Christopher Hacon was elected Distinguished Professor this year, joining our already distinguished Mladen Bestvina, Jim Keener and Graeme Milton. Congratulations, Christopher!

The Department will welcome three new postdocs next year: VIGRE postdocs Moshe Adrian and Lance Miller as well as Tyler Skorczewski, who will be supported from a grant held by Aaron Fogelson. Welcome!

And we have an exciting crop of new graduate students. This year there was some recruiting chaos as prospective students visited us throughout the spring semester rather than during one weekend. Our GSAC leaders, visibly frazzled, have requested a saner approach next year, but the yield was terrific. Thank you to all the graduate students who helped to make this possible, and I promise that next year we will return to sanity.

Congratulations to all our graduates, and to our retiring faculty: Klaus Schmitt and Paul Roberts. We bid you adieu but are delighted that you plan to maintain close ties with the Mathematics Department.

Have a lovely summer, everyone.

Klaus Schmitt Retires
by Andrejs Treibergs

Klaus Schmitt is retiring this year after many years service to the University of Utah. After receiving his PhD at the University of Nebraska in 1967, and a job at Nebraska Wesleyan University, he joined the faculty at Utah in 1967. Klaus served as department chairman from 1988-1991. An internationally known authority on nonlinear differential equations, Klaus has written over 140 research articles, five research level books and at least seven course texts. The best known to graduate students here is his math 6410-20 text "Nonlinear Analysis and Differential Equations: An Introduction," written with his former student Russell Thompson, who passed away in March. He is the editor of three scientific journals and serves on the editorial boards of 10 others. He has organized 22 conferences and sat on 31 committees and panels. For years, Klaus was the driving force for the rotating BYU-USU-UU PDE seminar.

Klaus began researching ordinary differential equations. His interests have since included delay

DEs, integral equations, functional equations, elliptic and parabolic PDE's, bifurcation theory, and variational inequalities; all are applications of nonlinear functional analysis. He has written about applications of DEs to chemistry, biology, elasticity and fluids. He has collaborated with scientists from all over the world. He travels often to give talks and has been a visiting professor in Wurzburg, Karlsruhe, Bonn, Bremen, Heidelberg, Berlin, Louvain, Kuwait City, Calabria, Stuttgart, Taipei, Zurich, Kaiserlautern, Sidney, Santiago and Hsinchu.

Klaus has been one of few willing to teach the History of Mathematics course offered by the department. Klaus has always been recognized as an excellent teacher. He has the knack of explaining an intricate subject by making it intuitive and clear. Yet he challenges students to excellence. Klaus has supervised 17 PhD students, 10 masters students and five REU projects.

To you, Klaus, and to Claudia, we wish a happy retirement, with the occasional game of tennis or a sip of wine at your retreat in the San Juans.

> *The down side about retirement is having to drink coffee on your own time.*

Paul Roberts Retires

Paul Roberts is retiring after serving as a member of the Mathematics department for thirty-four years. Paul received his Ph.D. from McGill University in 1974, and joined the University of Utah a few years after. He has had a distinguished career as a researcher in Commutative Algebra, and his work includes monumental breakthroughs: Paul proved Serre's conjecture on the vanishing of intersection multiplicities, and his 'Intersection Theorem' settled a host of open questions in homological local algebra.

Paul was an invited speaker at the 1990 International Congress of Mathematicians in Kyoto. He has authored about forty papers and the books 'Multiplicities and Chern classes in local algebra' and 'Homological invariants of modules over commutative rings.' He was editor of the Journal of Algebra for ten years, and a special volume of the journal was published in

honor of his sixtieth birthday. This occasion was also marked by a conference at Snowbird, in celebration of Paul's enormous contributions.

Paul has combined a research program of the highest quality with a dedication to the education of his students and postdocs. He has always been generous with his time, and has supervised nine Ph.D. theses at the University of Utah.

Paul and Anne plan to spend several months of the year living on their new boat in San Diego, but we look forward to seeing them in Salt Lake City in between. Our warmest wishes for a pleasant retirement.

Graeme Milton Receives Professorship

Graeme Milton has been appointed Eisenbud Professor at MSRI for a two-month period this Fall. The Eisenbud Professorship is an endowed Chair created in 2007 by a grant from the Simons Foundation to support distinguished visiting professors at MSRI. Graeme will be at MSRI this fall as part of the special program on "Inverse Problems and Applications." Fernando Guevara-Vasquez and Daniel Onofrei will also be participating in this program.

Lajos Horváth Receives Two Research Awards
by Stewart Ethier

The Statistical Society of Canada has selected the paper, "Two sample inference in functional linear models" by Lajos Horváth, Piotr Kokoszka, and Matthew Reimherr, as the best paper published in the *Canadian Journal of Statistics* in 2009. The award ceremony will occur at the annual SSC meeting in Quebec City on May 25. The *CJS* has an acceptance rate of about 20% and publishes about 40 papers per year.

Lajos's coauthors both have a University of Utah connection. Piotr Kokoszka was a postdoc at Utah from 1993 to 1996 and has been at Utah State University since 2000. Matthew Reimherr received bachelors and masters degrees from Utah in 2006 and 2008, and is now pursuing a Ph.D. in statistics at the University of Chicago.

In an unrelated matter, Lajos received a certificate from the journal *Econometric Theory* and Cambridge University Press for

contributions to the science of econometric theory. It is based on his publications and editorial work done for *Econometric Theory* and leadership in econometrics.

Graduation!

This year approximately 70 undergraduate mathematics majors will receive a baccalaureate degree. Eleven students will receive a Masters degree in Mathematics and five will receive the Master of Statistics degree. Students receiving the Ph.D. in 2009-2010 are Yael Algom-Kfir, Courtney Davis, Trung Dinh, Lindsay Erickson, Giao Huynh, Casey Johnson, Karim Khader, Zachary Kilpatrick, Sarah Kitchen, Hankun Ko, HwanYong Lee, Karin Leiderman, Frank Lynch, William Malone, Jay Newby, Michael Purcell, Russell Richins, Shang-Yuan Shiu, and Josh Thompson. Congratulations graduates!!

This is a time to celebrate the past with all its successes and the future with all its possibilities.