MATH@ANDREWS

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What Are They Doing Now?

Mathematics students go on to diverse graduate programs and careers.

Chantel Blackburn (BS 2006) is in her second year of the PhD program in the Department of Mathematics at the University of Arizona in Tucson. See her letter on page 6.

Christina Burden (Minor 2006) is working on a master's in biology at Andrews. She is constructing mathematical models of the male cricket call in relation to environmental variables such as temperature, time of day, and geographic distribution. Her thesis advisor is Professor Gordon Atkins.

Medicine—Law—Education—Atmospheric Science—Audiology—Mathematics—Physics—Engineering—Chemistry—Biology— Music—Computer Science

Jonathan Chong (Math Studies 2004) is currently in his third year of studying medicine at Loma Linda University. This summer he became engaged to Andrea Heyn. Andrea is from Bridgman, MI and attended Andrews University for two years. She is graduating from La Sierra University this year and plans to study medicine. They will be married on July 13, 2008. Jon joined the Air Force as a second lieutenant on scholarship to fund his medical education. He will serve in the Air Force upon graduation and completion of specialty training. Jon hopes to match with a general surgery residency during his fourth year. He was able to participate in research with the Neonatology Department two summers ago between his first and second year. He studied "Effects of oxygenation-deoxygenation cycling on nitrite metabolism in blood in vivo and ex vivo." The abstract was published in a medical journal, and Jon presented the work at a local conference in Loma Linda as well as an international meeting in Toronto, Canada.

Jeffrey Hafner (Math Studies 2005, MS 2006) is currently working on a PhD in physics at the University at Buffalo.

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2007 Math Graduates

Erik Christian Brown (BS Physics, Mathematical Studies, Pi Mu Epsilon member). Erik is in the Department of Aerospace and Mechanical Engineering, working under Dr. Eric Jumper. Brendan says married life is treating him well and he is enjoying life after Andrews.

Philip Davis Roberts (BS Physics, Mathematical Studies, Pi Mu Epsilon member, Chemistry minor). Philip is still around Andrews, currently doing some contract work at the church. Next semester he may go to the Laser Interferometer Gravitational-Wave Observatory (LIGO) in Washington state. Philip did his honor's research on LIGO data as an undergraduate at Andrews.

Robert Lloyd Wilson (BS Chemistry, American Chemical Society Emphasis, Mathematical Studies, J. N. Andrews Honors Scholar, Pi Mu Epsilon member). Robbie is at the University of Illinois at Urbana Champaign. He is in the Denmark Lab, which is an organic group; Robbie is the first inorganic student in the lab. He will be working on carbonylations of epoxides. Robbie is teaching four discussion sections of general chemistry. He says that he likes teaching and has some cool students. Next semester he will take a class

Alumni

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Kami Lizarraga (BS 2005) is in her second year at Columbia University Law School. See the interview on page 4.

Clara Logan (BS 2005) is working on a master's in mathematics at Central Michigan University. She wants to do research in teaching styles.

Laura Mack (BS 2006) is in her second year of the PhD program in Atmospheric Science at Colorado State University.

Larrisa Mann (Minor 2006) is at Central Michigan University working on a doctorate in Audiology. She is in her second year of the four-year program.

Andrea Moore (MS 2006) is working as the Education Specialist at the Family Literacy Center, an initiative of the

Ed Specht Moves to Bloomington, IN

by Donald Rhoads, Professor Emeritus and Former Chair

Professor Emeritus Edward Specht, chair of the Department for 25 years, is now 92 years of age and living in the Garden Villa nursing home in Bloomington, Indiana. On my last visit I found him and his wife Mary alert and interested in my report of recent European travels.

Since his retirement from Indiana University South Bend, Ed has written a major geometry treatise which employs minimum (independent) axioms and is built on the idea of transformations, as opposed to the more usual approach through similarity. Keith Calkins, teacher in the Math ISD program at Andrews, has typed the manuscript in TEX for publication, and a major publisher has expressed interest in it.

A considerable amount of work remains on the project, mainly cleanup work of various types, corrections, and final decisions about the shape of Chapter 29, which culminates with the polygonal form of the Jordan Curve Theorem. At the present time, Keith is the one with the most comprehensive understanding of the whole work, while I have been reading parts of the manuscript for obvious errors. □

Research Updates

Recent Publications

- **Lizarraga, K. M., Kang, J. H.**, Lee, J.H. 2006. Perturbation of a nonlinear elliptic biological interacting model. *Dynamics of Partial Differential Equations* 3 No.4:281-293.
- **Kang, J. H.**, Lee, J. H. 2006. Steady state coexistence solutions of reaction-diffusion competition models. *Czechoslovak Mathematical Journal* 56 No.131:1165-1183.

Two former undergraduate students, Kami Lizarraga and Chantel Blackburn, appear as coauthors on two publications.

- Cushing, J. M., **Henson, S. M.**, and **Blackburn, C. C.** 2007. Multiple mixed-type attractors in a competition model. *Journal of Biological Dynamics* 1:347-362
- Cushing, J. M., **Henson, S. M.**, and Roeger, L.-I. 2007. Coexistence of competing juvenile-adult structured populations. *Journal of TD-0.0005 Tc0.002 Tw(1-1.9(o347-362)Tj/TT9 1 Tfuwrn a c39 (0 TDb,S9 1 T)-3.6(201-231.)TJ/TT9 1 Tf-17.0599 -1.7964*

An Interview with Kami Lizarraga

Kami Lizarraga received a BS in Mathematics in 2005 and entered Columbia University Law School. Here she is interviewed by Shandelle Henson, Professor of Mathematics.

SH When did you become interested in mathematics?

KL

Kami Lizarraga

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When I received my acceptance letters, the two clear frontrunners were Columbia and NYU, which were the best schools into which I was accepted. Law schools are kind of strange in that way—they are officially ranked, numbers 1 through 180, and which law school you go to almost entirely determines which jobs you can get, from large firms to government positions to public interest organizations. It's kind of sad, but it is 100% true.

SH What kind of "deal" do you have at Columbia? Do you teach? Are you on a fellowship?

KL Columbia does not require students to work during the school year. In fact, they forbid work during the first year, which has a fixed curriculum and is extremely difficult. I did not have a job during my first year and have no idea how anyone would have the time! However, after first year ends, most students obtain some kind of legal internship for the summer, although this is not required. The second and third years of law school are a different story. Columbia has no requirements per se, and students can take any classes they want, as long as they meet the credit requirement. Other than traditional lecture classes, Columbia offers seminars, independent study, externships, and practical clinics that also count for credit. Students have the option of working as a teaching assistant for a professor or working part-time for a law firm.

I think a math major is an excellent choice for a student planning on going to law school.

SH Tell me the sequence of events that will happen over the next few years in your career.

KL As strange as it seems, law students interview for their after-graduation job at the beginning of the second year of school. I went through the interview process over the last few months and recently accepted an offer from a law firm in New York. I will work at this law firm as a summer associate over next summer, between my second and third years of law school. The common practice at law firms is to extend an offer of permanent employment at the end of the summer to all summer associates who make the cut. I will then complete my final year of law school and hopefully pass the bar exam in 2009!

SH

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He was assisted by Christopher Armstrong, Vice President, and Thomas Adams, Secretary-Treasurer.

Endowed Chair

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3) Make available additional courses for our majors, even if they do not have many students. Specifically I am thinking of topology, which has become quite standard for undergraduates planning to pursue graduate study in mathematics.

4) Enhance our ability to serve the needs of other departments that depend on mathematics. Shandelle Henson has pointed the way with her work in Mathematical Biology—we need to pursue this model, both by strengthening her program and by emulating it in other disciplines.