

Fall 2004

sampler

Faculty News

Writing, Researching, Traveling

After serving eleven years as a hard-working Department chair, **Jim Broffitt** decided it was time to get back to more teaching and research. Consequently, he stepped aside on August 15, and the Department leadership is now in the very capable hands of Luke Tierney. Luke is very busy since, in addition to chairing the Department, he is working on two grants and editing the *Journal of Computational and Graphical Statistics*. We believe the Department has made great strides in recent years, and we look forward to further advancement under Luke's guidance.

We are happy to announce that **N.D. Shyamalkumar** is a new assistant professor in actuarial science beginning this academic year. Shyamal received his Ph.D. in statistics at Purdue University in 1996. At Purdue he worked under the direction of Jim Berger and won the prestigious Savage award for his dissertation research. After working for three years in the financial industry in India, Shyamal accepted a teaching position at ITAM in Mexico City and has been teaching actuarial science for the past five years. Shyamal is one exam away from completing his Fellowship in the Society of Actuaries. We are delighted to count him among our faculty.

Robert V. Hogg returned as a visitor to the department for the Fall 2003 semester. Bob helped found the Department of Statistics in 1965, chairing the department for 19 years, as well as teaching at UI for more than 50 years. This year Bob is turning 80 years young. An account has been set up at the University of Iowa Foundation to honor his contributions to the university by providing the funding to create a Robert V. Hogg Chair for our department.

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Jim Broffitt



N.D. Shyamalkumar



Robert V. Hogg

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In Memoriam

from the CHAIR



It is now well into the Fall semester of an exciting new year. This is my first opportunity to write to you as department chair, having taken over from Jim Broffitt at the beginning of the semester. I would like to take this opportunity to thank Jim for his eleven years as service as department chair. The department has made enormous progress under his excellent stewardship.

We are very pleased to have N. D. Shyamalkumar on board as our new assistant professor in actuarial science. Two searches for assistant professors are underway this year. We hope to hire one new faculty member in statistics and one in actuarial science.

Tim Robertson completed his phased retirement and became Professor Emeritus at the end of the spring 2004 semester. Tim has been a pillar of the department for many years and his contributions will be sorely missed.

Our outstanding Actuarial Science program is thriving. During 2003-2004, we awarded 22 M.S. degrees and 9 B.S. degrees in Actuarial Science. Our students excelled on the SOA exams. Our pass rates for exams three and four were 76%, and total of 46 Iowa students passed these exams. In addition, six alumni became Fellows of the Society of Actuaries and 20 alumni became Associates of the Society of Actuaries.

In August 2004 the department hosted the 39th Annual Actuarial Research Conference, which brought around 100 actuarial researchers from around the globe to Iowa City. The department last hosted this conference in 1992.

We are very grateful for the generous donations from alumni, friends, and companies which allow us to attract and support the best students. During the 2003-2004 academic year we spent more than \$64,000 on our students. The vast majority was in the form of scholarships, actuarial exam fee reimbursements, and prizes. This is a big investment, but having the best students makes it worthwhile. Thank you for helping to make our programs successful!

One of the most important ways we can receive support toward the hiring and retention of outstanding faculty is by the establishment of endowed chairs in our department. Recently we instituted the Robert V. Hogg Professorship account at the Foundation to fund a chair in our department in Bob's honor.

I hope you will enjoy reading the news about the department, students, faculty, and alumni on the following pages. We would be happy to include any news you would like to share with former classmates in next year's newsletter. Please use the enclosed sheet to send your information, or send us an email.

Best Wishes,

A handwritten signature in black ink that reads "Luke Tierney". The signature is written in a cursive, slightly slanted style.

Luke Tierney
Chair, Statistics and Actuarial Science
Ralph E. Wareham Professor of
Mathematical Sciences
(319) 335-0712
luke-tierney@uiowa.edu

Faculty News (Continued from page 1)



Jian Huang

Jian Huang was promoted to full Professor. His research initially included semi-parametrics, survival analysis, and interval censoring. In more recent years he has expanded his research into statistical genetics, bioinformatics, and Microarray data analysis. He has established research collaborations with faculty in genetics, pediatrics, psychiatry, engineering, biology, and ophthalmology.

Jian has been very successful in obtaining grant support for his research and has been invited to speak at many international conferences or workshops, including the 2004 Joint Statistical Meeting in Toronto.

Jian gave a summer course on “Semiparametric Models and their Applications” in the Department of Mathematics, Graduate School of the Chinese Academy of Sciences, July 2004.

Jian was the dissertation advisor for Deli Wang (Biostatistics) who graduated in May of 2004. Deli is now a research assistant professor at the University of Alabama Comprehensive Cancer Center.



Dale Zimmerman

Dale Zimmerman received a four-year, \$750,000 grant (together with colleagues from the University of Iowa’s Department of Geography and the Department of Health Management and Policy) for studying the effects of “geocoding errors” on spatial analyses of prostate cancer.

Dale is currently serving as Program Chair for the Section on Statistics and the Environment of the American Statistical Association. He was named to the Editorial Board of the *Journal of Environmental and Ecological Statistics*. He gave invited talks on spatial statistics topics at the Wildlife Society Conference in Burlington, VT in September 2003 and at the International Environmetrics Society Annual Meeting in Portland, ME in June 2004.



Kung-Sik Chan

Kung-Sik Chan was awarded a National Science Foundation grant for the study of the statistical analysis of long-memory continuous-time processes.

Marianthi Markatou, formerly of our department, was elected Fellow of the American Statistical Association this year.

Warren Luckner, a former visiting professor in our department, was elected Vice President of the Society of Actuaries.



Joseph Lang

Joseph Lang has been chosen to be the first recipient of the “Distinguished Alumnus Award” from the University of Florida, Department of Statistics.



Jonathan Cryer

Jonathan Cryer has published the fifth edition of his Minitab Handbook. He revised the book completely to reflect the numerous changes in Release 14 of Minitab. Jon has also been appointed to Dean Linda Maxson’s Emeritus Advisory Committee.

Tim Robertson became a Professor Emeritus in May 2004 after 39 years at the University of Iowa. He began his teaching career at Cornell College in Mt. Vernon, Iowa in 1961, and became an Assistant Professor of Statistics at the University of Iowa in 1965. He completed his Ph.D. in 1966 at the University of Missouri at Columbia. He was elected Fellow of the American Statistical Association and of the Institute of Mathematical Statistics in 1979. He was Governor-at-Large of the Mathematical Association of America from 1978 to 1981. He was elected to membership in the International Statistical Institute in 1984. He directed 17 Ph.D. dissertations while at Iowa, including those of Professor Richard Dykstra and Distinguished Alumnus Ed Wegmann (see Alumni News). Tim’s interests today center around his farm and his animals. He makes occasional trips to campus to keep up with the activities of his colleagues, especially Bob Hogg, who has a condo in town so he can visit us during football season.



Sheldon Lin

Sheldon Lin, a former Associate Professor in our department, has won this year’s Annual Prize of the Society of Actuaries. He was a co-winner with Ken Seng Tan of the NAAJ Annual Prize for “Valuation of Equity-Indexed Annuities under Stochastic Interest Rates.”

RECENT Graduates

IT IS ALWAYS GRATIFYING to see our students succeed in their academic programs and then move on to rewarding careers. Officially, the department awarded four Ph.D. degrees during the past year. It is interesting to hear about academics and future careers from students who just graduated. Here are remarks from our most recent PhDs.

Recent Ph.D. Graduates in Statistics



Aaron Christ

Aaron Christ earned his Ph.D. in Statistics in August 2003 under the direction of Professor Dale Zimmerman. "The beauty of statistics is that you never know where it can take you. I never would have dreamed that my studies would lead me to the Alaskan wilderness, to interact with wildlife face to face in one of the most beautiful places on Earth. As a biometrician for the Alaska Department of Fish and Game, I help research biologists plan and carry out various studies both for managing populations and understanding the biology of individual species." Aaron is currently working at the Alaska Department of Fish and Game at the University of Alaska.

"My fondest memories of studying at Iowa are of the people I met along the way. The professors who

were only a door knock away, generous with their time and willingness to help. Late nights in the lab, frantically finishing projects with my fellow students. And how would it all keep running without the amazing office staff? It's definitely the people that make Iowa a special place to study!"



Yu-Jau Lin

Yu-Jau Lin earned his Ph.D. in Statistics in August 2003 under the direction of Professor Osnat Stramer and is currently employed as an Assistant Professor at Chung Yuan Christian University. "It's great for me to study Statistics at The University of Iowa. I would like to express my sincere thanks to the faculty members in the Department of Statistics and Actuarial Science for teaching me and advising me, especially Dr. Joseph Lang and Dr. Osnat Stramer. As a teacher in Taiwan, I wish I can provide the same

quality of good teaching that I received at UI to my students."

B.S. Graduates in Actuarial Science (with Honors)

Bryce Rosel earned his B.S. in Actuarial Science and Mathematics with honors in Actuarial Science in December 2003. As a top student, Bryce was also involved in numerous activities, including the Actuarial Science Club and the University of Iowa Band. He is currently employed by Principal Financial Group in Des Moines.

Nur Ain Shahrier earned her B.S. in Actuarial Science, Economics and Mathematics with honors in Actuarial Science and Economics in May 2004. She accomplished three majors in three years with three professional exams and is going to pursue her master's degree in Financial Engineering at Cornell University. "The competitive educational environment, as well as the strong motivation to pass the professional exams, encouraged me the most at The University of Iowa."

Events

Actuarial Research Conference

Our Department hosted the 39th Actuarial Research Conference from August 5 to 7, 2004. About 100 actuaries participated, and over 40 research papers were presented. The conference was opened by Neil Parmenter, President of the Society of Actuaries and a University of Iowa actuarial alumnus. The first paper was given by Hans Gerber of the University of Lausanne, Switzerland. Several former Iowa faculty members returned to attend the conference: Jim Hickman, Bruce Jones, Sheldon Lin, Kelley McKeating, and Stuart Klugman. The conference proceedings will appear in the 2005.1 issue of the *Actuarial Research Clearing House*.



Jim Berger

The 34th annual Allen T. Craig Lectures were held on April 8-9, 2004. This year's

Craig Lecturer was **Jim Berger**, Arts and Sciences Professor of Statistics, from the Institute of Statistics and Decision Sciences at Duke University. Professor Berger received a B.A. (1971), an M.A. (1973) and a Ph.D. (1974), all in Mathematics, from Cornell University. He was the Richard M. Brumfield Distinguished Professor of Statistics at Purdue University before joining the faculty at Duke University in 1997. His current research interests include hypothesis testing and model selection; decision theory, multivariate statistical analysis, foundations of statistics, simulation and Markov Chain Monte Carlo computation; likelihood, spatial statistics, nonparametric statistics, interdisciplinary applications in meteorology, astronomy, and validation of complex computer models. He has received numerous distinguished awards, including a Guggenheim Fellowship (1977-1978), a Sloan Fellowship (1979-1981), an Erskine Fellowship (New Zealand, 1985 and 1998), the Com-

mittee of Presidents of Statistical Societies “Presidents” award (1985). He was elected Fellow of the American Association for the Advancement of Science (1988), elected as foreign member of the Spanish Real Academia de Ciencias (2002), and elected to the USA National Academy of Sciences (2003).



Jun Yan

The Fall Picnic by Jun Yan

We had our Fall Picnic 2004 on Saturday, August 21, at shelter #3 in City Park. It was a beautiful day. More than 100 people showed up and had fun before the new semester started. Fresh BBQ, fruit and desserts were prepared by our student volunteers with enthusiasm. Six books donated by our faculty and one \$30 gift certificate to the IMU bookstore were won by seven students at the picnic. The winners were drawn from a student list with R mimicking a roulette

wheel. For those curious, we aborted the infinite loop “while (TRUE) print (sample(1:n, 1)),” wherein is the total number of the students.

A trophy called the Sampler was prepared for the winner of a volleyball game between faculty and students. In the department history, the faculty never officially lost a game to students when Bob Hogg was the judge. However, the students won and will keep the Sampler until next fall. Only two faculty members were on the faculty team, Michael Jones and me. I probably should have done a better job in recruiting our faculty team. To win the Sampler back, I have joined a volleyball club and am practicing hard.

On behalf of the whole department, I would like to thank all those students who volunteered to help organize the picnic. Sam Fraser, Rui Qin, Peng Sun, Brenda Veik, Ning Yan, and Lili Zhao did the planning for the whole picnic. Brenda designed the flyer of the picnic and prepared fruits and desserts at home. Lili made the reservation

for the sports equipment. More helpers joined for shopping, setting up, grilling and cleaning up: Matt Behrens, Dong Liang, Xiaomei Pan, Jasmine Song, Jingyan Wang, Haotong Wu, Huiliang Xie, Shaowei Yang, Wei Zhou, and others. Thank you all and we appreciate your help.

Finally, I would like to thank Tammy Siegel for great ideas and continuing support. I would also like to thank our faculty members Jim Broffitt, Jon Cryer, Joe Lang, and Russ Lenth for donating books to the awards pool. Hopefully more books will come into the awards pool for future book raffles.

Chong Gu, Department of Statistics, Purdue University
“Nonparametric Mixed-Effect Models”

Blake Whitten, University of California, Santa Barbara
“Maximum-likelihood Estimation in Explicit Models for Missing-data Problems”

Alexander Kugushev, CyberGnostics, Inc.
“Presentation of CyberStats, a Web-driven introduction to Statistics”

Michael Kososok, University of Wisconsin, Madison
“The Profile Sampler”

Chong He, Department of Statistics, University of Missouri-Columbia
“Bayesian Estimation of Age-Specific Bird Nest Survival Rates”

Cary Chi-Liang Tsai, Department of Finance, National Taiwan University
“On the Surplus Process Perturbed by Diffusion”

Hao Zhang, Department of Statistics, Washington State University
“Model-Based Geostatistics: Some Recent Results on Computational and Theoretical Issues”

Joy Jordan, Department of Mathematics, Lawrence University
“What Statistics Educators Can Learn from the Writing-Across-the-Curriculum Literature”

N.D. Shyamalkumar, Department of Actuarial Science, Instituto Tecnológico Autónomo de México
“Hattendorrf Theorem – Yet Another Look”

Taps Maiti, Department of Statistics, Iowa State University
“On the Mean Squared Prediction Error for Small Area Estimation”

David Scott, Department of Statistics, Rice University
“Partial Mixture Estimation for Outlier Detection, Mapping, and Clustering of Large Datasets”

Neil Parmenter, President of Society of Actuaries
“The Actuarial Profession: A Global Perspective”

Jim Berger, Institute of Statistics and Decision Sciences, Duke University
CRAIG LECTURE #1 – “Objective Bayesian Analysis: Its Uses in Practice and Its Role in the Unification of Statistics”
CRAIG LECTURE #2 – “Validation of Computer Models”

STUDENT Awards & Activities

Scholarships and Exam Refunds

Scholarships totaling \$20,110 were awarded to ten Actuarial Science students during the 2003-04 academic year. Included among these were several named scholarships.

AmerUs Charitable Foundation Scholarships **Luba Aginsky** and **Julieta Zambrano**

Lloyd A. Knowler Scholarship
Nafis Noori

Principal Financial Group Foundation Scholarship
Bryce Rosel and
Blake Tiernan

Harold W. Schloss Scholarship **Biou Xu**

In addition to scholarships, the department refunded a total of \$16,080 to 63 students passing CAS/SOA exams in May and November 2003.

In May 2003, 29 Iowa actuarial students wrote Exam 4, and 22 passed. In November 2003, 31 Iowa actuarial students wrote Exam 3, and 24 passed. This is incredible news, and we are very proud of these achievements of our students.

We are pleased to have so many outstanding students receiving scholarships and passing exams, just as we are grateful for the generous donations from corporations, alumni and friends that make these scholarships and exam refunds possible.

Student Awards



Wei Zhou

Demonstrating exceptional achievement and ambition throughout her academic career at Iowa, **Wei Zhou** was presented with the Lloyd A. Knowler Award for outstanding graduating student in actuarial science. Wei earned her M.S. degree in May 2004 and is continuing her Ph.D. studies under the direction of Professor Elias Shiu.

Lindsay Coffman and **Scott Wood** were presented the Allen T. Craig Awards for outstanding teaching assistants.

Lindsay earned her M.S. in Actuarial Science in May 2004. She had been a TA for



Scott Wood and Lindsay Coffman

22S:2 Statistics and Society and is now employed by Principal Financial Group in Des Moines. Scott has just completed his first year as a TA for 22S:25 Elementary Statistics and Inference and plans to finish his M.S. in Statistics in May 2005.



Ning Yan

The Henry L. Rietz Award for outstanding performance on the Ph.D. comprehensive exam was presented to **Ning Yan**. While completing his degree in Statistics, Ning is a teaching assistant for our department.

It is gratifying that we can recognize our best and brightest students, and at the same time honor alumni and past teachers who shaped The University of Iowa's statistics and actuarial science programs.

Actuarial Science News



The Actuarial Science Club is now enjoying its third year of success as it grows stronger and wiser. Group activities last year included helping at the Iowa City food bank during the holiday season. The Club plans to do more volunteering and community service, in addition to continuing to develop relationships with actuarial professionals, on-campus recruiters and other students.

In April 2004, Neil Parmenter, president of the Society of Actuaries and former University of Iowa graduate came and gave an insightful lecture on the exam system and careers for actuaries.

For more information about the Club, please visit our web site: <http://www.stat.uiowa.edu/actscli.html>



Neil Parmenter, president of the Society of Actuaries, with Darcy Miller, president of the UI Actuarial Science Club

ALUMNI news



Correction: It was reported in last year's *Sampler* that **Travis Lappe** (B.S. Actuarial Science 1996) was an ACAS. Travis received his ACAS in 1999 and his FCAS in 2000. We apologize for this error.

1957
John A. Beekman (M.S. Actuarial Science 1957) lives in Muncie IN. John is Lincoln National Corp. Professor Emeritus of Actuarial Science at Ball State University. He was a visiting professor in the Department of Statistics and Actuarial Science, The University of Iowa, 1969-70. "At the Annual Meeting of the Society of Actuaries in Orlando FL, in October 2003, Harry Panjer, President of the Society of Actuaries, presented Presidential Awards to six longtime actuarial science professors. Three of the six had longtime connections to The University of Iowa's actuarial program. They were John A. Beekman, James C. Hickman and Donald A. Jones."

1967
John A. Hotz, Jr. (M.S. Statistics 1967) lives in Houston TX and is President of General Valve Co.



Edward J. Wegman

1968
Edward J. Wegman (Ph.D. Statistics 1968) was honored with a Distinguished Alumni Award by the College of Liberal Arts and Sciences at The University of Iowa on June 12, 2004, in Iowa City. A gifted visionary, Ed Wegman has been a major force in guiding and shaping the evolution of statistics into modern

computational science. Whether mentoring college students, publishing more than 160 academic papers, or contributing to national defense in his work with the Department of the Army and the Office of Naval Research, he demonstrates an inspiring combination of scholarship, leadership, innovation, global reputation, and a can-do attitude.

1971
Ronald D. Platt (Ph.D. Statistics 1971) lives in Overland Park KS. "Retired not, or perhaps unemployed. My training served me well as I enjoyed a career consulting – primarily for new drugs and medical diagnostics. Thank you very much."



Jane Pendergast

1979
Jane Pendergast, (Ph.D. Statistics 1979), was elected President of the Eastern North American Region (ENAR) of the International Biometrics Society. Jane is a faculty member in the College of Public Health, Department of Biostatistics at The University of Iowa.

1980
Jon Abraham (B.S. Statistics 1980) lives in Sudbury MA and is employed by Worcester Polytechnic Institute. "After 24 years working as an insurance company actuary, I am joining WPI to coordinate their undergraduate actuarial program. I will be teaching and advising students. There are 35-40 undergraduates majoring in actuarial Science. I am looking forward to this career change!"

1988
Terry Guerra (M.S. Actuarial Science 1988) lives in Philadelphia PA and is employed by Achieve Ability. "I love *The Sampler!*"

1989
Christopher Breen (M.S. Statistics 1989) lives in Indianapolis IN and is employed by Eli Lilly. "I've switched industries from electronics to pharmaceuticals and moved from Texas to Indiana to work as an associate senior statistician for Eli Lilly. I continue to support manufacturing and quality."



Hammou El Barmi

1993
Hammou El Barmi (Ph.D. Statistics 1993) was promoted to Full Professor of Statistics in the Zicklin School of Business at Baruch College in New York.

1998
Chiang Ching Huang (M.S. Statistics 1998) lives in Naperville IL and is employed by Northwestern University. "I earned my Ph.D. in Biostatistics from the University of Michigan in August 2003. I am working in Northwestern University as an Assistant Professor in the Department of Preventive Medicine. I am working on several NIH/NCI grant projects, dealing with gene expression and/or proteomic data. It has been great (and exciting) to mine these huge amounts of data and other bioinformation with hope to better understand the mechanism

of human complex diseases, such as cancers and provide better treatment and/or prevention.

2000
Michael Kiguta (M.S. Statistics 2000) lives in Iowa City. "I have been working at The University of Iowa Hospital & Clinics as a research assistant. The knowledge I acquired at the stats dept is very helpful especially in understanding of image analysis of the human brain. It's interesting how statistics is applied in mapping of images, and my vocabulary in psychiatry continues to grow. I have a son who's almost two, and that's a whole new set of challenges."

Congratulations to Iowa alumni who became associates or fellows since our last newsletter.

SOCIETY OF ACTUARIES Fellows (FSA)

August 2004
Andy Ferris (M.S. 1996)
Wen Chi Reese (B.S. 1996)

May 2004
Duanhong Lin (M.S. 2000)
Chris Pezalla (M.S. 1996)

March 2004
Patrick Ryan (B.S. 1994)

November 2003
Chad Fix (M.S. 1998)

SOCIETY OF ACTUARIES Associates (ASA)

August 2004
Jingsu Pu (M.S. 2000)

July 2004
Nick Gifford (B.S. 2002)
Jennifer Jakubowski (B.S. 1999)
Wenyi Lu (M.S. 2000)
Olga Petushkov (B.S. 2000)
Oleg Sydyak (M.S. 2001)
Nathan Wenz (B.S. 2003)

February 2004
Brian Brown (B.S. 2000)
Katie Karch (B.S. 2002)
Mun-Bin Kuo (M.S. 1997)
Valerie Nelson (B.S. 2002)
Greg Vande Krol (B.S. 2000)

December 2003
Dan Li (M.S. 2003)
Hariharan Mani (M.S. 2002)
Jason Meade (B.S. 2001)
Erin Sheriff (B.S. in Math 2001)
Elvin Seet-Yeow Tharm (M.S. 2001)
Linyi Zhang (M.S. 2000)

November 2003
Tony Langasek (B.S. 2003)
Corrie Proksa (B.S. 1998)

In Memoriam

1928

Vada A. (Podendorf) Holmes (B.A. Mathematical Sciences 1928) – February 1, 2002.

1934

Portia M. Main Feay (B.A. Mathematical Sciences 1934) – July 5, 2004.

Robert E. Smith (B.A. Mathematical Sciences 1934) – May 20, 1997.

1937

David Pinsky (M.S. Mathematical Sciences 1937) – November 11, 2003.

1938

Englebert A. Gidcombe (M.S. Mathematical Sciences 1938) – July 19, 1994.

Elma I. (Jespersen) Mattfeld (B.A. Mathematical Sciences 1938) – November 16, 2002.

1939

Glenn G. Balmer (M.S. Mathematics 1939) – November 14, 1996.

Frances M. (Svaldi) Thirtle (B.A. Mathematical Sciences 1939) – April 19, 2003.

1940

Russell L. Wagner (M.S. Mathematical Sciences 1940) – July 13, 2002.

1941

Frank J. Onstine (B.A. Mathematical Sciences 1941) – January 3, 2004.

1947

McClain Cheetham (M.S. Mathematical Sciences 1947) – February 1972.

1948

William J. Carroll (M.S. Mathematical Sciences 1948) – September 27, 2003.

Martin L. Zeffert (M.S. Mathematical Sciences 1948) – October 1, 2003.

1950

Harry E. Nelson (Ph.D. Mathematical Sciences 1950) – December 30, 2003.

1951

Allen R. Beard (M.S. Mathematical Sciences 1951) – November 26, 2003.

Dale G. Jungst (B.A. Mathematical Sciences 1950, M.S. 1951) – October 2004.

Leland F. Page (M.S. Mathematical Sciences 1951) – November 13, 2003.

1958

Duane M. Norman (M.S. Mathematical Sciences 1958) – September 20, 2003.

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STATISTICS & ACTUARIAL SCIENCE

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