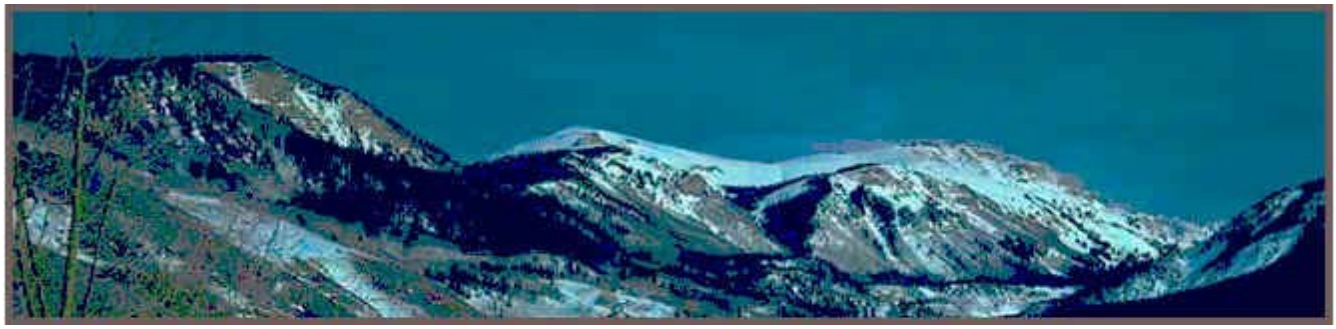


NEWSLETTER OF THE COLORADO – WYOMING CHAPTER OF THE AMERICAN STATISTICAL ASSOCIATION

Volume 33, Number 3 **September 20, 2002**

Fall Meeting
Saturday October 26, 2002
Denver Athletic Club

The fall meeting of the Colorado-Wyoming Chapter of the ASA will be held on **Saturday October 26, 2002** at the **Denver Athletic Club**, 1325 Glenarm Place, in downtown Denver. A registration form for the meeting is included with this newsletter and on the chapter web site (address listed in the contact information near the end of this newsletter).

The format of this meeting will be somewhat different than recent meetings. The meeting schedule is as follows:

5:30 pm	Social/cocktail hour (cash bar)
7:00 pm	Dinner and round table discussions
7:45 pm	Chapter announcements and introduction of Dr. Max Morris
8:00 pm	Address by Dr. Morris

Meeting registration in advance is appreciated, and thus offered at a $15 discount. In order to foster student participation, the chapter is subsidizing the cost of student registration. Registration includes dinner (choices are listed on the registration form), non-alcoholic beverages, and dessert. Prices are as follows:

	Students	**Others**
Postmarked before October 15th:	$18	$35
Postmarked after October 15th or at the door:	$33	$50

Parking is not included in the price of the meeting, but is available at the Denver Athletic Club for $3. Carpooling is encouraged.

Max Morris to Give Keynote Address at Fall Meeting

Dr. Max Morris accepts the 2002 Jerome Sacks Award at JSM.

The ASA Colorado Wyoming Chapter is very pleased to announce that Professor **Max Morris** of **Iowa State University** will give the keynote address at the fall meeting.

Max Morris joined the Iowa State University faculty as a full professor in August 1998, with joint appointments in the Department of Statistics and Department of Industrial and Manufacturing Systems Engineering. He received his B.S. in Mathematics from **Oklahoma State University**, and M.S. and Ph.D. in Statistics from **Virginia Polytechnic Institute and State University**. Before going to ISU, he held faculty positions at the **University of Texas Health Sciences Center** in San Antonio and **Mississippi State University**, and was Senior Research Scientist and Statistics Group Leader at **Oak Ridge National Laboratory**.

His research interests include experimental design, spatial sampling and modeling, change detection techniques, and the

design and analysis of computer experiments. During the past decade, the topic of computer experiments has grown in importance, due to the large number of scientific and engineering investigations that depend on large-scale computer models of physical phenomena. Dr. Morris' research has lead to the publication of several widely referenced journal articles concerning how these studies can be efficiently designed and the data (model outputs) analyzed.

During his years at Oak Ridge National Laboratory, he was principal or participating investigator on several research projects in the development of general statistical methodology, and in applications from the biological and physical sciences and engineering.

The National Institute of Statistical Sciences (NISS) presented Dr. Morris with the **2002 Jerome Sacks Award for Cross-Disciplinary Research**. The photo at the top of this article shows Dr. Morris accepting his award. The following is an excerpt from the award citation:

Professor Morris' work displays his rare talent for matching a very pragmatic view of problems in applied science with the elegance of mathematical statistics. He is an innovative, sought-after collaborator in interdisciplinary teams, and the statistical tools he has developed to solve problems in one discipline have often crossed boundaries to be used by applied scientists in others.

Though qualified to speak on many topics, Dr. Morris has chosen the field of computer experiments for his address to the chapter membership. His presentation is entitled ***Computer Experiments and Statistics***. An abstract describing this presentation can be found in the next column. Don't miss the opportunity to see Dr. Morris; attend the fall meeting.

WILL THE REAL ED JONES PLEASE STAND UP?

(A Max Morris Anecdote, submitted by Chuck Bayne)

Max was at an ASA meeting when he spied the back of a person he thought was his good friend Ed Jones talking with a colleague. He walked up to him and the following conversation ensued.

Max: Hi! Ed Jones.

The person turns around and says: Hi Ed! I'm Joe Smith (not his real name).

Max: No, I'm not Ed Jones, I'm Max Morris.

Joe: Who is Ed Jones?

Max: I thought you were Ed Jones.

Joe: No, I'm Joe Smith -- Ed.

Max: No, I'm Max.

The colleague realized Max's mistake and was almost doubled over with laugher. Max had to walk away rather than continue the confusion; leaving Joe Smith wondering, "who is Ed Jones?".

Max shortly afterwards started working on optimal searching.

President's Invitation to the Fall Meeting

I would like to encourage everyone to attend the fall meeting on Saturday evening, October 26th at the Denver Athletic Club. Come out and spend an evening with your fellow statistics professionals in the CO-WY Chapter of ASA.

The evening will begin with a social hour (cash bar) at 5:30, followed by a dinner and the after dinner presentation by Max Morris of Iowa State University. Max is a great speaker and I anticipate an informative, interesting, and entertaining talk.

During dinner, some tables will be allocated for round table discussions of various statistical topics. Sit with friends or sit with other statisticians in your area of interest. Share conversations and meet new people.

Schools are encouraged to support student members by helping them with the registration fees. We all remember those student days of grand interest and enthusiasm but limited funds.

Return your registration forms and your checks ASAP. I'm looking forward to seeing everyone on the 26th.

- Jim Luhring

Abstract for Max Morris' Keynote Address:

COMPUTER EXPERIMENTS AND STATISTICS

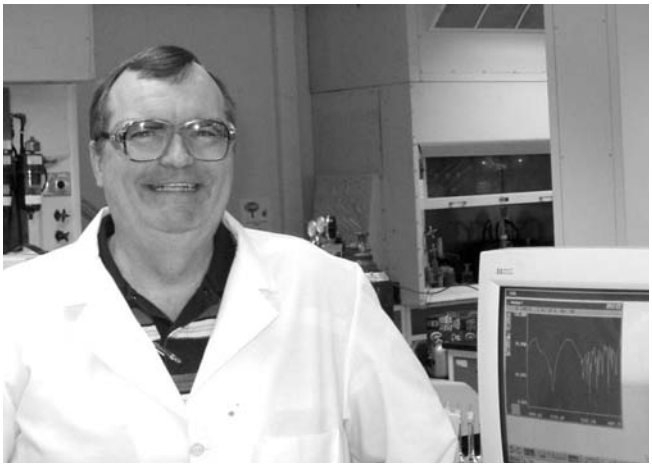
Computer models, programs written to simulate physical systems of interest, have become fundamental tools in scientific and engineering investigations. Because computer models are essentially representations of completely deterministic functions, the need for statistical experiments is not immediately obvious. However, with advances in theoretical knowledge and computational power, models from many disciplines (e.g., meteorology, physics, transportation, environment) have become enormously complex, often representing hundreds of major physical sub-processes with thousands of input and output variables. Such deterministic models, even though "known" to the team of programmers who create them, are so complex that even a subject-matter expert cannot accurately predict outputs from a given set of inputs. Answers to questions such as "Which inputs are most important?" and "Which conditions lead to meaningful patterns in the outputs?" may require the design, implementation, and analysis of an empirical study -- a ``computer experiment'' -- followed by an analysis of the resulting computed ``data''.

In this talk, I will present a brief overview of some statistical ideas and methods that have been used for studying computer models. Previous knowledge about computer experiments will not be assumed. Generally, earlier methods tend to treat computer models as ``black boxes'', while more recently introduced techniques incorporate more assumptions, information about the model, or data from the computer experiment. Projecting this trend, I see this topic as a prime opportunity for collaborative work among statisticians, applied mathematicians, and scientists willing to pool their expertise to create even more informative models, analysis techniques, and computer experiments.

SAVE THE DATES!

Winter Meeting	Spring Meeting
Cherry Creek HS	NCAR Mesa Lab
Saturday February 8	Friday April 11

More information on these meetings will be available in the next newsletter and on the chapter web site. **http://www.stat.colostate.edu/ASA**



Chapter Secretary Jack Powers Introduces Himself

Jack Powers currently serves the local chapter as secretary. Prior to taking this office, he was newsletter editor. Jack is employed at Ball Corporation as the manager of the Container Operation's Chemistry Laboratory.

His early training was in physical organic chemistry where one did experiments in duplicate. **If the answers didn't agree, refinements were made in experimental technique until they did.** While this may be appalling to many of our readers, he maintains that this was a more refined statistical approach than synthetic chemists who did the experiment two or three times and reported the highest yield.

Very early in his industrial career, the lack of experimental control forced him to learn the "t-test". About the same time, the introduction of the personal computer and calculators convinced him that rulers and French Curves were less than ideal for drawing graphs. These small steps were the start of a long evolutionary process that eventually led to his earning a master's degree in statistics from Ball State University.

He finished his statistics degree the same year (1997) that Ball moved its laboratories to Colorado. That was when he joined the local chapter and volunteered to be the newsletter editor.

Jack has added statistical support to those services offered by the Chemistry laboratory. This is not the most likely marriage, but it can be done when you are the only statistician in the building. His statistical services include the design and analysis of experiments and minor support of the Corporation's SPC efforts. **He is also called on to help with charts – statistically based or otherwise – since he has the best graphing software in the building.**

While all of his industrial experience has been with Ball Corporation, Jack also served his country for 3 years in the U.S. Navy 2nd and 6th Fleets. He says of his tour of duty "**I helped keep the Riviera safe for democracy**".

Jack lives in Broomfield with his wife Ginger. (Ginger, though not a chapter member, contributes to the chapter by assisting Jack with his secretarial duties in exchange for Dairy Queen Blizzards). Jack has two grown children who live out of state. On most weekends, he can be found hiking in the mountains.

The First International Conference on Resource Selection by Animals

Monday January 13 - Wednesday January 15, 2003
Laramie, Wyoming

The *First International Conference on Resource Selection by Animals* will take place from 13-15 January 2003, preceded by a *Workshop on Resource Selection Functions*, 11-12 January. Both activities will take place on the campus of the University of Wyoming.

The conference is sponsored by the Department of Statistics and the Department of Zoology and Physiology at the University of Wyoming, and also by Western EcoSystems Technology Inc. It is intended that the papers presented at the conference should include some by biometricians and statisticians on the statistical theory and methods related to the detection and measurement of selection of food and habitat by animals, and other papers by biologists on the application of these methods with real populations. The areas of application will include fisheries, wildlife and forestry, with data collected in the field or extracted from GIS. Refereed *Proceedings* of the conference will be produced either in book form or electronically. More information on registration for the conference, Invited Speakers, etc. will be found at the web site www.west-inc.com.

The workshop before the conference will be based on the recently published book *Resource Selection by Animals: Statistical Design and Analysis for Field Studies*, written by staff of Western EcoSystems Technology and the University of Alaska, and published by Kluwer Academic Publishers. All of the authors from Western EcoSystems will give presentations at the workshop. It will be assumed that participants have no previous knowledge of statistical methods for studying resource selection, and a moderate knowledge of statistical methods generally (i.e. one or two university courses). However, it may also be of interest to statisticians and biometricians who wish to begin consulting and research in this area of statistics. The workshop is separate from the conference, and it is possible to register for just the conference, just the workshop, or both of these.

Bryan Manly
Western EcoSystems Technology
Cheyenne, Wyoming

Back up my hard drive? How do I put it in reverse?

WEB SITES LISTING STATISTICS JOBS

The following web sites list job openings in statistics as well as in other related fields. Many of them list job openings outside of the hosting organization, but of interest to statisticians. If you know of any additional sites that should be added to the list, please email the URL to the newsletter editor (address provided at the end of this newsletter).

http://www-math.cudenver.edu/~kk/jobs/jobs.html

http://www.sas.com/jobs/USjobs/

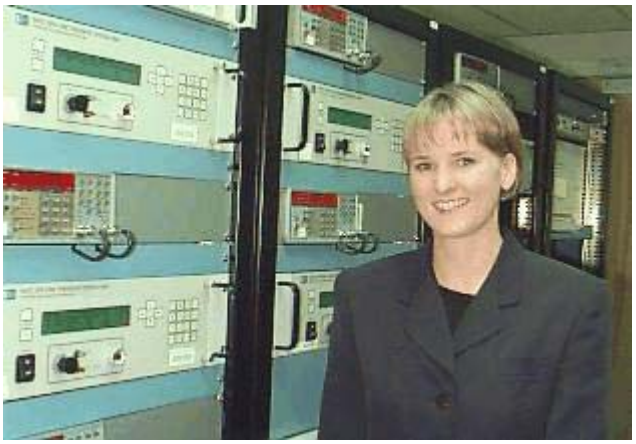
http://HigherEdJobs.com/

http://jobs.amstat.org/search.cfm

http://www.stat.colostate.edu/pos_ann.html

WATCH THIS SPACE! – The next edition will list statistics software web sites. Each newsletter will feature a list of web sites of interest to statisticians. If you would like to nominate a site to be included, please send your suggestion to the newsletter editor.

NEW MEMBER PROFILE



LARA SCHMIDT

Lara Schmidt is a mathematician/statistician working for the U.S. Naval Observatory (USNO) in Colorado Springs where her work focuses on time-series analysis. Since the USNO is the nation's official timekeeper, the data sets Lara works with contain time-ordered timing data! The USNO has an ensemble of over 80 atomic clocks in Washington, DC and Colorado Springs and is the largest contributor to the world's official timescale, Coordinated Universal Time (UTC). Lara and her colleagues combine measurements from these atomic clocks to form the nation's timescale, UTC (USNO). This timescale is used for applications such as navigation (GPS satellites) and communication (cell phone networks) and is stable to a few nanoseconds (1e-9 seconds) at an averaging length of 1 day. Lara has recently begun to apply long-memory models in atomic timekeeping. The strong serial correlation of atomic clock data is well described by these fractionally integrated processes that have received so much attention in econometrics in recent years.

Lara received her masters in mathematics from West Virginia University and her Ph.D. in statistics from American University.

The chapter extends a warm welcome to new member Lara Schmidt. We look forward to her involvement in the local statistical community and chapter activities.

Locals Elected To Serve At ASA National Level

Two "locals" were elected to serve at the national level of the ASA during 2002. **Karen Kafadar**, University of Colorado at Denver, is serving on the ASA board of directors as publications representative. She continues to serve as the chapter's representative to ASA. **Timothy Robinson**, University of Wyoming, was selected as the program chair-elect for the ASA Section on Quality and Productivity (Q&P). Congratulations!

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Facts are stubborn; statistics are more pliable.