



OREGON CHAPTER

American Statistical Association

Fall 2008 Meeting

November 6, 2008

King Tin Restaurant, Corvallis, OR

Agenda:

1. Minutes and financial report (Meike Niederhausen)
2. Report on short course (Lisa Madsen)
3. Science fair (Teri Utlaut)
4. From the floor

A method for choosing the prior distribution in one of the simplest Bayesian models: a normal distribution with a conjugate prior

Dr. Susan Alber, Oregon State University Department of Statistics

Abstract

A primary objection to Bayesian models is the use of subjective prior distributions which influence analysis results. However, a carefully chosen prior can improve the accuracy of estimated parameters. In many cases the choice of the exact distributional form of the prior is less important than the choice of the hyperparameters (which are the fixed parameters in the prior distribution, and are generally functions of location and scale). For a normal model with a conjugate prior, we examine the effects of hyperparameter values on the frequentist properties of posterior point and interval estimates, and develop an approach for choosing well calibrated hyperparameters that improve estimation. We show how the hyperparameter values affect the mean square error (MSE) of posterior point estimates and the coverage of posterior credible intervals, and define two types of hyperparameter optimality. The MSE optimal hyperparameter minimizes the MSE of the posterior point estimate. The credible interval optimal hyperparameter minimizes the length of the posterior credible interval while still maintaining the nominal coverage. We use our results as a basis to provide practical advice for choosing hyperparameter values under the usual situation where the data generating model is not known.

Treasurer's Report Fall 2008

Account xxxx643-6	
Previous Balance	\$2251.45
Chapter rebates and Dues from ASA and 2008 Spring meeting	+\$196.00
Bayesian Short course	+ \$1991.00
Balance	\$4438.45

Minutes of the Spring 2008 Meeting Thursday, May 29

1. Location: Mandarin Cove, 11 SW Columbia, Portland, Oregon
2. Participants: 15
3. Business items:
 - a. Treasurer's report and minutes by Rochelle Fu. The starting balance after Winter, 2008 meeting is \$2585.95 and the ending balance is \$2251.45. Also, Form 990-N was filed to IRS for Tax-Exempt Organizations on March 26th, 2008.
 - b. Jim Alegria and Dongseok Choi briefed on field trips to Cleveland and Wilson high schools. They visited IB classes in Cleveland high school and AP classes in Wilson high school.
 - c. Jim Alegria updated on ASA traveling short course of the Bayesian Methods. The situation is similar to the winter meeting situation. We are very likely to get the course, but the decision has not been finalized. Jodi Lapidus mentioned the thought of having the OHSU students to take it as part of a course.
 - d. Jim Alegria asked about nomination for the next treasure/secretary and Teri Utlaut nominated Meike Niederhausen. Meike will think about it and send out an email about her decision.
 - e. Jim Alegria led the discussion and vote on the Mission, Strategic plan and Operational plan, with Lisa Madsen's coordination.
 - i. A consensus vote was taken on mission statement and passed by consensus.
 - ii. A consensus vote was taken on strategic plan and passed.
 - iii. There was an active discussion on operational plan. In responding to the proposed operational plan on budget that there will be an additional \$2.00 charge when a room fee is incurred,
 1. Discussion on increasing dues to spread out the expenses with counter points that the members may consider not to join when fee increases

2. There are more ASA members than chapter members in Oregon – need to make efforts to recruit more members.
 3. Operational plan was meant to be annual and could be revisited each year when situation changes.
 4. About the current budget, based on current expected income, there will be a deficit. There is the discussion whether we would like to operate under a deficit budget, but there is the possibility we could get the short course to increase revenue.
 5. Then the discussion came back to increase dues and Tomi Mori /Dr. Lee suggested to increasing dues to \$10.
- iv. A few motions passed followed by the discussion:
1. Chapter dues will be increased by \$2.
 2. Budget for Northwest Science Fair increase from \$400 to \$450.
 3. An additional \$2.00 charge when a room fee is incurred, will not be charged.
4. Presentation by Jim Alegria, 2007-2008 president of the Oregon Chapter on *The Oregon pilot for a national rangeland assessment: Challenges of integrating two national inventory*.

Submitted by Meike Niederhausen, Secretary/Treasurer 2008-9.