August 21, 2013

Editor
Annals of Applied Statistics

Dear Editor:

Ramey, Stein and Young presented a computationally more efficient version of regularized discriminant analysis (Friedman 1989). Below are major and minor comments that can help improve the quality of the manuscript.

Major

1. Comparing their regularized discriminant analysis method with those that assume independence (e.g. Dudoit, Pang, Tong, and Guo) is not a fair comparison. Classifiers that do not have this assumption should be compared.
2. Elastic net, k-nearest neighbor, and support vector machine are also excellent classifiers, these should be compared.
3. The selling point of this paper is the improved computational efficiency as claimed. What is the relative scale of improvement for real data analysis. Is it days vs. hours? Or is it minutes vs. seconds? The author should also discuss the computational complexity, i.e. where the computational speed up took place compared to the original rda.
4. A computationally more efficient implementation of Friedman 1989 was presented. While the work is worth publishing, Annals of applied statistics may not be the most suitable. The manuscript might be more suitable for journals such as statistical computing, computational statistics or a software journal.

Minor

1. What's the number of genes for Nakayama [2007] data set?
2. page 13: thereby ignoring the inclusion of a large number of variables. this part should be rephrased, having a large number of variables is not necessarily a good thing as it is a harder to reproduce and more difficult to interpret the results.

3. Can some simulations results be summarized in terms of figures in the main manuscript?

Sincerely yours,