Student’s Name: Yuxiong Xie

Instructor’s Name: Esther Namubiru

Class and Section: EAP 506 SECTION P03

Due Date: 11/10/2015

**Journal Analysis of “Statistics and Computing”**

Academic journals play an important role in graduate students’ study life. When they are writing papers, journals can be one of the best sources to learn and cite to support their topics. In addition, statistics has gradually become significant part in most fields, such as business, industrial, mathematics. Thus, in order to help students majored in Statistical Science to be familiar with statistics journal study, this paper will introduce and analyze the journal, Statistics and Computing, a publication for academic people and special scholars, like students, professors and researcher in this field.

In the Springer, the study states, “Statistics and Computing is a bi-monthly refereed journal that publishes papers covering the interface between the statistical and computer sciences” (“Computational Statistics”, 2015). This journal which is peer reviewed had the first edition in 1991; and the editor in chief was Mark Girolami. The journal’s purpose is “to address the use of statistical concepts in computer science, such as machine learning, computer vision and data analytics, and additionally the utilization of computers in data modelling, prediction and analysis” (“Computational Statistics”, 2015).

In addition, this journal provides a guide for authors when submitting a paper. During the editorial procedure, authors need to found out the frequently asked questions, and notice the time to first decision and publication, article digital object identifier (DOI). In this guidelines, it introduces manuals the journal prefers, which includes Title page, Text, References, Tables and other requirements. For instance, in the part of citation, cite references in the text have to be done by name and year in parentheses. What’s more, the list of references should only include works that are cited in the text and that have been published or accepted for publication, and the list entries should be alphabetized by the last names of the first author of each work and do not use footnotes or endnotes as a substitute (“Computational Statistics”, 2015)

The articles published in Statistics and Computing are contributed by professionals and experts in this field. Moreover, Springer also describes, “the content type of this journal is academic, and main parts are peer reviewed articles, including original research reports, authoritative review papers, discussion papers, book review and software review sections” (“Computational Statistics”, 2015). That is to say, Statistics and Computing focuses mainly on other academic article reviews. So this journal is more likely to provide forum for reviewers to share comments and exchange thoughts on papers or books. For example, the article “Max-min optimal discriminating designs for several statistical models”, follows a max-min approach to discriminate among competing statistical models. It has a comment on model identification considered by different optimality criteria, particularly by using max-min method (Tommasi et al., 2015).

Certainly, the structure of each publication can be reflected by the idea of articles. According to the table of contents, there will be listed as three or four main topic in a new publication. The structure will be divided into several parts based on the themes. Take the volume 24, number 2 as an example, it discussed four topics. These were, “Regression Models, Parameter Estimation, Distribution and Variance”. In every themes, the number of articles varies from 3 to 5 to discuss main ideas.

Meanwhile, Statistics and Computing also have some interesting features. There is a higher impact factor that equals to 1.623 in 2014. Another usage factor which is the median value of the number of downloads for articles published online is also up to 73.0 (“Computational Statistics”, 2015). Look at the most cited articles, “this journal contains techniques for evaluating analytically intractable problems, such as bootstrap resampling, sequential Monte Carlo, huge data sets and big data analytics, computer algebra, inverse problems and uncertainty quantification” (“Computational Statistics”, 2015). According to the latest volume of the journal, this issue discussed graphical models, algorithm approach, distribution and variances. Although they are the same as the ones in earlier volumes, they are using the newest methods to analyze similar topics by following technology changes. In this feature, the editors focus on some specific topics, which will collect different ideas from different scholars, and publish in this journal. Thus, this volume will provide a platform to discuss and share the information about these topics.

In particular, this periodical also contains special issues. Highlights extraordinary issues can devote to critical and rising points or the procedures of significant gatherings (“Computational Statistics”, 2015). Issues are usually 100 to 150 pages, with articles typically in the 10 to 20 pages’ range. Recent topics include frailty models, horizontally partitioned data, models for interval censored data, nonparametric assessment of model adequacy (“Statistics and Computing”, 2015). In other words, special issues discuss and analyze several problems in specific areas. These issues appear occasionally, but they will be helpful for readers. They will cause more discussion and analysis about the topic among audience and give back to the authors. Just like that, in volume 25, issue 1, there is an introduction to the special issue “Joint IMS-ISBA meeting – MCMSki 4” (Christian et al., 2015). It describes some important information about this meeting and suggestions for authors. Special issues mean a unique and significant topic which are different with the common topics. In other words, this special volume can mention professional people to discuss and share their ideas, which will broaden scholars’ academic knowledge.

Finally, when analyzing this journal, Statistics and Computing, I learned lots of suggestions about my writing. The most valuable advice is how to organize statistical data and computer tools in one paper. Furthermore, it also helps me notice many factors that I previously ignored when reading journals. That is to say, the journal will be a great source for me to learn and cite ideas in my writing; and it can also broaden my perspectives on Statistical Science. It takes me out of books, but inspire me to a wider statistics world. In the later study, I can no only study in college, also I should read more articles, papers, or even communicate with professors to explore the connection among statistics with other fields, such as computer science. Therefore, the more knowledge I gain, the wider academic vision will be.

**Reference**

Springer. (2015). Computational statistics: statistics and computing. Retrieved from [http://www.springer.com/statistics/computational+statistics/journal/11222/PS2](http://www.springer.com/statistics/computational%2Bstatistics/journal/11222/PS2).

Tommasi, C., Martin, R. M., & Fidalgo, J. L. (2015). Max–min optimal discriminating designs for several statistical models. *Statistics and Computing. 1-11.* doi: 10.1007/s11222-015-9606-1

Ulrichsweb. (2015). Statistics and computing. Retrieved from <https://ulrichsweb.serialssolutions.com/title/1447119487416/194194>

Christian, P. R., & Antonietta, M. (2015). An introduction to the special issue ‘Joint IMS-ISBA meeting – MCMSki4. *Statistics and Computing. 25(1). 1-1.* doi: 10.1007/s11222-014-9536-3