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Class and Section: EAP 506 P03

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**Journal Analysis of “Statistical Science”**

Statistics is a scientific method, and it is used in whole field of natural science and social science in many parts, mostly agriculture, commercial, education, medicine, politics, society, economy and so on. Statistics is applicable in variety of fields. Therefore, statistics is more and more significant. To help students become familiar with statistics, this paper will analyze the journal, Statistical Science， a subscription required journal open to researchers, scholars, practitioners, and students from all statistics related disciplines. Statistical Science perhaps is a useful journal for people in statistic field because the impact factor is 2.738 in 2014. [1]

The journal of Statistical Science is a United States statistic research journal published by Institute of Mathematical Statistics from 1986 and it is issuing fours times a year. The major purpose of the journal is to reveal a deep, broad insight of the statistics field by presenting the full range of contemporary statistical ideas at an analytically technical level. To this end, the Statistical Science will distribute surveys of powerful new methodological and theoretical topics, interviews with distinguished statisticians and probability, and articles on the history of statistics and probability [2].

The articles which submitted to the journal should follow the required editing style. The acceptable draft should be double-spaced, 11-point font size and wide margins at sides, top and bottom. The outline of the journal should be including abstract and keywords in the very beginning, followed by Introduction, Methodologies, Conclusion, Acknowledgment and Reference. The language of the articles need to be reader friendly. [3] In addition to the experts of statistics, the targeting reviewers of Statistics Science would also include some students and casual readers.

The most discussed topic since the journal had been published were including Bootstrap confidence internals, Fraud detection in statistics, and Bayesian Models [4]. All these topics have always been most argued statistical topics over the years. Bootstrap methods can be a good approximation to produce confidence intervals. Statistics plays significant factor on providing techniques of fraud detection in many fields, such as e-commerce credit card fraud, telecommunications fraud and computer intrusion. Moreover, Bayesian model provides a coherent mechanism for accounting uncertainties which most of the real world practices contain. These topics not only analytical for academics but also practical for the industries.

The recent and special issues of Statistics Science had published some articles focusing on parameter estimation using state-spaced model [5]. Special issues contain collections of papers on a specific topic. [6] The thoughts behind the articles about state-spaced model were using a reliable numerical approximation to the inference the problems which depends on unknown static parameters. In addition, the no treatment hypothesis was also a main topic of the latest journal. The article developed a very interesting discussion on what hypothesis is being tested, what model assumptions are being made and what is the proper approaches to testing a no-effect hypothesis, other than the traditional “no-treatment-effect” hypothesis tests.

A very interesting feature of the Statistical Science is The "conversation pieces”, as known as Interview which is a special and popular feature of the Journal. On each issues, there are a few section for interviewing the researchers and experts in statistic field. The interviews focus on the interviewee's ideas behind his or her contributions over the career, but rather than just the accomplishments in his or her career. Actually, I do not pay much attention in the interviewee’s career, because this is not useful for me. I will know more about statistic field if the articles in this journal can mention more about interviewee’s ideas because sometimes I can get inspiration from these. For instance, when I prepared for the graduation paper, I want to research a new topic and I get idea from a journal about statistics.

From reviewing the materials of the Statistics Science journal, the most valuable inspiration for my writing was that always keep in mind that an academic and analytical article is not merely for serious researchers and experts. There are casual readers and beginners who are also interested in reading, and this would be requiring author have a well trained and organized writing skill to make their research easy to understand to all readers.

Reference:

[1] Admin-apps.webofknowledge.com, 'CAP', 2015. [Online]. Available: <http://admin-apps.webofknowledge.com/JCR/JCR?RQ=LIST_SUMMARY_JOURNAL>. [Accessed: 10- Nov- 2015].

[2] Imstat.org, 'Statistical Science', 2015. [Online]. Available: <http://www.imstat.org/sts/policy.html>. [Accessed: 10- Nov- 2015].

[3] Imstat.org, 'Statistical Science', 2015. [Online]. Available: <http://www.imstat.org/sts/manprep.html>. [Accessed: 10- Nov- 2015].

[4] C. Library, 'Publication Information', Projecteuclid.org, 2015. [Online]. Available: https://projecteuclid.org/euclid.ss. [Accessed: 10- Nov- 2015].

[5] Nikolas, Arnaud, Sumeetpal S. Singh, Jan and Nicolas, “On Particle Methods for Parameter Estimation in Stat-Space Models，Journal of Statistical Science, vol. 30, no. 3, pp. 328-351, Sept. 2015

[6] Economics-ejournal.org, 'Special Issues — Economics E-Journal', 2015. [Online]. Available: http://www.economics-ejournal.org/special-areas/special-issues. [Accessed: 10- Nov- 2015].