J. Japan Statist. Soc.
Vol. 31 No. 1 2001 1–19

EXAMPLE PAPER FOR THE JOURNAL OF JAPAN STATISTICAL SOCIETY

Genshiro Kitagawa* and Sadanori Konishi**

Abstract must be no more than 150 words in a single paragraph. The abstract should state results in such a way that the reader can evaluate their significance. References should not be cited in the abstract.

Key words and phrases: Key words or phrases, no more than 10, should be supplied.

1. Introduction

> This style file is NOT the final version and is subject to change. Therefore, the final print out in the Journal may slightly different from what you see. To preview the actual print out in real size remove "`draft`" from the `documentstyle` (see 2nd line of Sample.tex).

jjss.sty is the style file for the Journal of Japan Statistical Society. This LaTeX file should be compiled with LaTeX209 system containing epsf.sty. If your paper does not contains any figures, epsf.sty is not necessary. We have a plan to prepare LaTeX2e version but is not fixed yet.

The text should be reasonably subdivided into sections and subsections as necessary. In the text, footnotes should be avoided unless their use is inevitable.

References: In the text, each reference is cited by the last name(s) of author(s) and the year of publication in parentheses. If two or more publications are listed for the same author(s) in the same year, distinguish them by a, b, c, etc. placed after the year. **One author**: Fisher (1932), Brown (1985, 1986), Hall (1978a, 1978b). **Two authors**: Johnson and Kotz (1982), **Three or more authors**: Davis et al. (1977)

Tables: Tables should be restricted to the minimum necessary. They should be numbered consecutively with Arabic numerals in order of appearance. A brief descriptive title should be given above each table. Any necessary footnotes in tables should be indicated directly below them by reference marks or by superscript lower case letters.

Figures: All illustrations are to be regarded as figures and they should be numbered consecutively with Arabic numerals. A brief descriptive title should be given below each figure.

Proofs: Page proofs will be supplied by the printer directly to the corresponding author. These should be corrected and returned within 48 hours of receipt; otherwise the paper might be published without author's

Received June 2000. Revised January 4, 2001. Accepted February, 2001.
*The Institute of Statistical Mathematics, 4-6-7 Minami-Azabu, Minato-ku, Tokyo 106-8569 Japan
**Kyushu University, 6-10-1 Hakozaki, Fukuoka 812-8581 Japan

proofreading. No substantial changes by the author will be accepted at this stage of proofreading, except where advance permission has been obtained from the Editorial Office. Costs arising from changes in proof, other than of printer's errors, will be charged to the authors.

Page charges and Reprints: There will be no page charge. 30 reprints of each paper will be provided free of charge to the authors with membership. Additional copies may be purchased from the publisher and should be ordered when the proofs are returned. Orders after publication cannot be filled at regular reprint prices.

2. Equations, Detfinition, Lemma and Theorem

2.1. Example of Equations

Consider a nonlinear non-Gaussian state space model for time series y_n,

$$x_n = F_n(x_{n-1}, v_n) \tag{2.1}$$

$$y_n = H_n(x_n, w_n), \tag{2.2}$$

where x_n is an unknown state vector, v_n and w_n are the system noise and the observation noise with densities $q_n(v)$ and $r_n(w)$, respectively.

2.2. Examples of Lemma and Theorem

LEMMA 1. *Let S_n be a random variable having a $\chi^2(n)$ distribution. Then we have $\cdots$.*

PROOF. Proof is not shown here.

THEOREM 2. *Assume $\sigma_i^2 \neq \sigma_0^2$, for all $i = 1, \ldots, k$. The empirical Bayes selection rule $d^{*n}(x)$, defined in* (3.7) *and* (3.8), *is asymptotically optimal with convergence rate of order $O(\ln^2 n/n)$. That is*

$$E_n[r(d^{*n})] - r(d^B) = O(\ln^2 n/n).$$

PROOF. Proof is not shown here.

3. Table and Figure

3.1. Table

Table 1. Table caption should be given here.

Order	AIC
1	35.4
2	21.6
3	13.4
4	11.6
5	12.2
6	13.8

3.2. Figure (in postscript file)

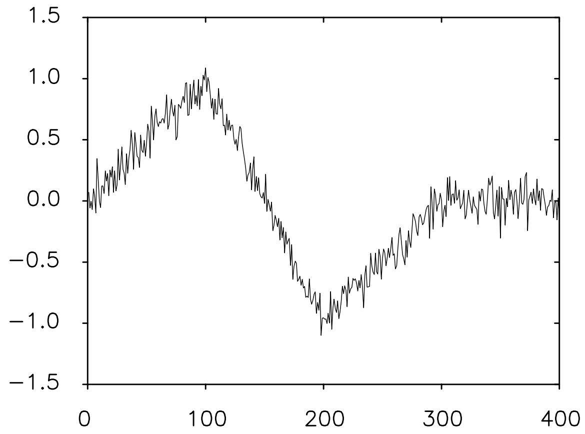

Figure 1. Figure caption should be given here.

3.3. Figure (other than postscript file)

Figure 2. Figure caption should be given here.

4. Conclusion

All the references should be listed at the end of the text in alphabetical order by the last name of the authors, or of the first-named author for co-authors references. Multiple entries for the same author(s) should be arranged chronologically. Named of journals should be written out in full or abbreviated according to a current index issue of Mathematical Reviews, if available. References should include the year of publication, full title, source, volume number, and inclusive page numbers according to the following style:

Journal; Anscombe, F.J.(1967). Topics in the investigation of linear relations fitted by least squares, J. Roy. Statist. Soc. Ser. B,29,1-5.

Book; Feller, W.(1966). An Introduction to Probability Theory and Its Applications, Vol.2, Wiley, New York.

Edited book; Lin, S.P. and Perlman, M.D.(1985). A Monte Carlo comparison of four estimators for a covariance matrix, Multivarite Analysis (ed. P. R. Krishnaiah), 6,411-429, North Holland, Amsterdam.

Proceedings; James, W. and Stein, C.(1961). Estimation with quadratic loss, Proc. Fourth Berkeley Symp. on Math. Statist. Prob., Vol. 1, 361-380, Univ. of California Press, Berkeley.

Appendix

Appendix comes here if necessary.

Acknowledgements

The author wishes to thank the referee for helpful comments.

References

[1] Alspach, D. L. and Sorenson, H. W. (1972). Nonlinear Bayesian Estimation Using Gaussian Sum Approximations, *IEEE Trans. on Autom. Control*, **AC-17**, 439–448.

[2] Anderson, B. D. O. and Moore, J. B. (1979). *Optimal Filtering*, Prentice-Hall, New Jersey.

[3] Andrede Netto, M. L. Gimeno, L. and Mendes, M. J. (1978). On the optimal and suboptimal nonlinear filtering problem for discrete-time systems, *IEEE Trans. Automat. Control*, **23**, 1062–1067.

[4] Kitagawa, G. and Gersch, W. (1996). *Smoothness Priors Analysis of Time Series*, Springer-Verlag, New York.

[5] West, M., Harrison, P. J. and Migon, H. S. (1985). Dynamic generalized linear models and Bayesian forecasting (with discussion), *J. Amer. Statist. Assoc.*, **80**, 73–97.