

International Journal of Engineering and Technology (Scopus)
Vol 7, No 4.30 November 2018, pp. 64-67
ISSN: 2227-524X (p)
DOI: 10.14419/ijet.v7i4.30.22007
Suparman , Mohd Saifullah Rusiman
Hierarchical Bayesian Estimation for Stationary Autoregressive Models Using Reversible Jump MCMC Algorithm

[IJET] [15833] Submission Acknowledgement

Editorial Team <ijet@sciencepubco.com>

Thu, Jul 19, 2018 at 4:13 PM

To: Dr Suparman Suparman <suparman@pmat.uad.ac.id>

Dear Dr Suparman Suparman:

Thank you for submitting the manuscript, "Change-Point Detection in Moving Average Model Using Reversible Jump MCMC Algorithm" to International Journal of Engineering & Technology. With the online journal management system that we are using, you will be able to track its progress through the editorial process by logging in to the journal web site:

Manuscript URL:

<https://www.sciencepubco.com/index.php/ijet/author/submission/15833>

Username: suparman

Now your paper is under review. We will contact you as soon as we get the referee report.

If you have any questions, please contact us. Thank you for considering this journal as a venue for your work.

Yours sincerely,

Editorial Office
Bremen, Germany

International Journal of Engineering & Technology<http://www.sciencepubco.com/index.php/ijet>



Science Publishing Corporation

Publisher of International Academic Journals



AUTHOR

Submissions

Active


(0)


Archive

(2)

New Submission

ABOUT JOURNAL

 [Aims and Scopes](#)

 [Indexing and Abstracting](#)

 [Editorial Board](#)

 [Author Guidelines](#)



 [Submit a Manuscript](#)

#15833 Summary

Summary

Review

Editing

Authors	Suparman .
Title	Change-time detection in moving average model based on reversible jump MCMC algorithm
Original file	IJET-15833.DOC 2018-07-19
Supp. files	None
Submitter	Suparman Suparman 
Date submitted	July 19, 2018 - 05:13 AM
Section	Articles
Editor	Eric Lui 
Abstract Views	64

Submission

Author Fees


Article Publication Paid May 27, 2019 - 07:59 AM

Status

Status Published Vol 7, No 4 (2018)
 Initiated 2019-05-27
 Last modified 2020-01-07

Submission Metadata

Authors

Name Suparman . 
 Affiliation Universitas Ahmad Dahlan, Indonesia
 Country Indonesia
 Bio Statement —
 Principal contact for editorial correspondence.

Title and Abstract

Title Change-time detection in moving average model based on reversible jump MCMC algorithm

Abstract

A piecewise moving average is a model that is more flexible than the moving average model. If the piecewise moving average is used to model data, the model parameters are unknown. The model parameters include the number of models, model coefficients, and white noise variance. This paper discusses the parameter estimation of the piecewise moving average model. Parameter estimation is done using the hierarchical Bayesian approach. Bayes estimators are calculated using the reversible jump Markov chain Monte Carlo algorithm. The performance of the algorithm is tested using synthesis data. The results showed that the reversible jump Markov chain Monte Carlo algorithm can estimate the parameters of the piecewise moving average model well.

Indexing

Keywords Bayes Method; Monte Carlo Method; Piecewise Linear; Parameter Estimation; Signal Detection.

Language —

Supporting Agencies

Agencies —

References

References

- [1] Nakamura, H.; and Toquenaga, Y. (2002). Estimating Colony Locations of Bumble Bees with Moving Average Model. *Ecological Research*, 17(1), 39-48. <https://doi.org/10.1046/j.1440-1703.2002.00461.x>.
- [2] Wang, Y.; and Ding, F. (2017). Iterative Estimation for a Non-Linear IIR Filter with Moving Average Noise by Means of the Data Filtering Technique. *IMA Journal of Mathematical Control & Information*, 34(3), 745-764. <https://doi.org/10.1093/imamci/dnv067>.
- [3] Dimitriou-Fakalou, C. (2011). Yule-Walker Estimation for the Moving Average Model. *International Journal of Stochastic Analysis*, 1-20. <https://doi.org/10.1155/2011/151823>.
- [4] Diallo, T.M.O.; and Morin, A.J.S. (2015). Power of Latent Growth Curve Models to Detect Piecewise Linear Trajectories. *Structural Equation Modeling*, 22(3), 449-460. <https://doi.org/10.1080/10705511.2014.935678>.
- [5] Tang, B.; Xiao, Y.; Sivalganathan, S.; and Wu, J. (2017). A Piecewise Model of Virus-Immune System with Effector Cell-Guided Therapy. *Applied Mathematical Modelling*, 47, 227-248. <https://doi.org/10.1016/j.apm.2017.03.023>.
- [6] Tang, B.; Xiao, Y.; and Wu, J. (2016). A Piecewise model of Virus-Immune System with Two Thresholds. *Mathematical Biosciences*, 278, 63-76. <https://doi.org/10.1016/j.mbs.2016.06.003>.
- [7] Xu, Z-H.; Yin, X-A.; Zhang, C.; and Yang, Z.F. (2016). Piecewise Model for Species-discharge Relationships in Rivers. *Ecological Engineering*, 96, 208-213. <https://doi.org/10.1016/j.ecoleng.2015.12.024>.
- [8] Hector, M.R-U.; Garnotel, M.; Doron, M.; Jallon, P.; Charpen-Tier, G.; Franc, S.; Huneker, E.; Simon, C.; and Bonnet, S. (2017). An Original Piecewise Model for Computing Energy Expenditure from Accelerometer and Heart Rate Signals. *Physiological Measurement*, 38(8), 1-1. <https://doi.org/10.1088/1361-6579/aa7cdf>.
- [9] Soleimanmeigouni, I.; Xiao, X.; Ahmadi, A.; Xie, M.; Nissen, A.; and Kumar, U. (2018). Modeling the Evaluation of Ballasted Railway Track Geometry by Two-Level Piecewise Model. *Structure & Infrastructure Engineering: Maintenance, Management, Life-Cycle Design & Performance*, 14(1), 33-45. <https://doi.org/10.1080/15732479.2017.1326946>.
- [10] Hong, A.; and Chen, A. (2012). Piecewise Regression Model Construction with Sample Efficient Regression Treen (SERT) and

Applications to Semiconductor Yield Analysis. *Journal of Process Control*, 22(7), 1307-1317. <https://doi.org/10.1016/j.jprocont.2012.05.017>.

[11] Chamroukhi, F. (2016). Piecewise Regression Mixture for Simultaneous Functional Data Clustering and Optimal Segmentation. *Journal of Classification*, 33(3), 374-411. <https://doi.org/10.1007/s00357-016-9212-8>..

[12] Buscot, M-J.; Wotherpoon, S.S.; Magnussen, C.G.; Juonala, M.; Sabin, M.A.; Burger, D.P.; Lehtimaki, T.; Viikari, J.S.A.; Hutri-Kahonen, N.; Raitakari, O.T.; and Thomson, R.J. (2017). Bayesian Hierarchical Piecewise Regression Models: A Tool to detect Trajectory Divergence between Groups in Long-Term Observational Studies. *BMC Medical Research Methodology*, 17, 1-15. <https://doi.org/10.1186/s12874-017-0358-9>.

[13] Bhansali, R.J. (1983). The inverse partial correlation function of a time series and its applications. *J.Multivar. Anal.*, 13, 310-327. [https://doi.org/10.1016/0047-259X\(83\)90029-5](https://doi.org/10.1016/0047-259X(83)90029-5).

[14] Green, P.J. (1995). Reversible Jump MCMC Computation and Bayesian Model Determination. *Biometrika*, 82(4), 711-732. <https://doi.org/10.1093/biomet/82.4.711>.

[15] Suparman, (2015). New Segmentation of Piecewise Linear Regression Models Using Reversible Jump MCMC Algorithm. *Journal of Computer Technology and Application*, 6(1), 14-18. <https://doi.org/10.17265/1934-7332/2015.01.003>.

[16] Suparman; and Doisy, M. (2014). Hierarchical Bayesian of ARMA Models Using Simulated Algorithm. *Journal of Telkomnika*, 12(1), 87-96. <https://doi.org/10.12928/telkomnika.v12i1.12>.

Could not connect:



Science Publishing Corporation

Publisher of International Academic Journals

MENU



MENU

AUTHOR

Submissions

Active

(0)

Archive

(2)

New Submission

ABOUT JOURNAL

Aims and Scopes

Indexing and Abstracting

Editorial Board

Author Guidelines

Submit a Manuscript


#15833 Review

Summary

Review


Editing

Submission

Authors Suparman . 

Title Change-time detection in moving average model based on reversible jump MCMC algorithm

Section Articles

Editor Eric Lui 

Peer Review

Round 1

Review Version [IJET-15833.DOC](#) 2018-07-19



Initiated 2018-07-19

Last modified 2018-07-25

Uploaded file None

Editor Decision

Decision Accept Submission 2019-03-29

Notify Editor  Editor/Author Email Record  2019-03-29

Editor Version None

Author Version [IJET-15833.DOCX](#) 2019-04-30 [DELETE](#)

Upload Author Version

 No file chosen

science

NAVIGATION

[Home](#)

[About us](#)

[Journals](#)

[Help](#)

PARTNERS

[Google Scholar](#)

[CrossRef](#)

[Open Journal Systems](#)

[Portico](#)

FOLLOW US ON

 Facebook Twitter LinkedIn Google +

ADDRESS

Science Publishing Corporation, RAK Free Trade Zone
RAK FTZ Business Park, Business Centre 4,
Al Mamourah Area, P.O. Box: 487447, UAE
SPC@sciencepubco.com
Support@sciencepubco.com

Copyright © 2017 Science Publishing Corporation Inc. All rights reserved.



Science Publishing Corporation

Publisher of International Academic Journals

MENU



MENU

AUTHOR

Submissions

Active


(0)

Archive

(2)

New Submission

ABOUT JOURNAL

 [Aims and Scopes](#)

 [Indexing and Abstracting](#)

 [Editorial Board](#)

 [Author Guidelines](#)

 [Submit a Manuscript](#)


#15833 Editing

Summary

Review


Editing

Submission

Authors Suparman . 


Title Change-time detection in moving average model based on reversible jump MCMC algorithm

Section Articles

Editor Eric Lui 

Copyediting

COPYEDIT INSTRUCTIONS

REVIEW METADATA	REQUEST	UNDERWAY	COMPLETE
1. Initial Copyedit File: None	—	—	—
2. Author Copyedit File: None	—	—	
<input type="button" value="Choose File"/> No file chosen			
<input type="button" value="Upload"/>			
3. Final Copyedit File: None	—	—	—

Copyedit Comments  No Comments


Layout

Galley Format	FILE		
1. PDF VIEW PROOF	IJET-15833.PDF	2019-05-27	62
Supplementary Files	FILE		
<i>None</i>			

Layout Comments  No Comments

Proofreading

REVIEW METADATA

	REQUEST	UNDERWAY	COMPLETE
1. Author	—	—	
2. Proofreader	—	—	—
3. Layout Editor	—	—	—

Proofreading Corrections  No Comments [PROOFING INSTRUCTIONS](#)

science

NAVIGATION

[Home](#)
[About us](#)
[Journals](#)
[Help](#)

PARTNERS

[Google Scholar](#)
[CrossRef](#)
[Open Journal Systems](#)
[Portico](#)

FOLLOW US ON

 [Facebook](#)

 [Twitter](#)

 [Linkedin](#)

 [Google +](#)

ADDRESS

Science Publishing Corporation, RAK Free Trade Zone
RAK FTZ Business Park, Business Centre 4,
Al Mamourah Area, P.O. Box: 487447, UAE
SPC@sciencepubco.com
Support@sciencepubco.com

Copyright © 2017 Science Publishing Corporation Inc. All rights reserved.

[IJET] [15833] Editor Decision

Editorial Team <ijet@sciencepubco.com>
Reply-To: "Prof. Eric M. Lui" <emlui@syr.edu>
To: Suparman Suparman <suparman@pmat.uad.ac.id>

Thu, Jul 26, 2018 at 5:16 AM

Dear Suparman Suparman:

We have reached a decision regarding your submission to International Journal of Engineering & Technology, "Change-Point Detection in Moving Average Model Using Reversible Jump MCMC Algorithm".

Our decision is: Revisions required.
Please find the review result as attachment.

Your cooperation is greatly appreciated.

Yours sincerely,

Editorial Office
Science Publishing Corporation
Dubai, UAE

Reviewer B:

The authors are expected to clearly identify and demonstrate the novel contributions of their paper, this would justify their work. A combination of theoretical and experimental methods, where applicable, should be employed and clearly described in the paper. The conclusions should be substantial and well supported by analysis and results.
The quality of the English and of the artwork has to be in line with the standards of the Journal. The presentation should be clear and focused on the novel elements.

International Journal of Engineering & Technology
<http://www.sciencepubco.com/index.php/ijet>

[IJET] [15833] Editor Decision

Editorial Team <ijet@sciencepubco.com>
Reply-To: Hind Abu Sadeh <hindabusadehhh@gmail.com>
To: Suparman Suparman <suparman@pmat.uad.ac.id>

Fri, Mar 29, 2019 at 5:56 PM

Dear Suparman Suparman:

We are happy to inform you that after positive referee reports your paper "Change-Point Detection in Moving Average Model Using Reversible Jump MCMC Algorithm" has been accepted for publication in International Journal of Engineering & Technology.

Please send by Email the Latex or Word file of the final version of your paper according to the Journal format as soon as possible.

In order to proceed to the next step of publication please visit:
<http://www.sciencepubco.com/index.php/index/about/payment>

Your cooperation is greatly appreciated.
Yours sincerely,

Editorial office
Science Publishing Corporation
Dubai, UAE

Reviewer B:

The authors are expected to clearly identify and demonstrate the novel contributions of their paper, this would justify their work. A combination of theoretical and experimental methods, where applicable, should be employed and clearly described in the paper. The conclusions should be substantial and well supported by analysis and results.
The quality of the English and of the artwork has to be in line with the standards of the Journal. The presentation should be clear and focused on the novel elements.

International Journal of Engineering & Technology
<http://www.sciencepubco.com/index.php/ijet>

[IJET] [15833] Editor Decision

Suparman P Mat <suparman@pmat.uad.ac.id>
To: Hind Abu Sadeh <hindabusadehhh@gmail.com>

Tue, Apr 30, 2019 at 9:55 PM

Dear Editorial Office,

I would like to thank you for your information. Attached, I sent the final version of my paper (ID Paper: 15833). If I pay a publication fee, proof of payment is sent by email ? After payment, when will my paper be published?

Best regards,

Dr. Suparman

[Quoted text hidden]

**IJET_15833_Suparman.docx**

179K

[IJET] [15833] Editor Decision

editor@sciencepubco.com <editor@sciencepubco.com>
To: suparman@pmat.uad.ac.id

Thu, May 2, 2019 at 3:46 PM

After payment, we will need 1-2 weeks to publish your paper.

From: hind abusadeh <hindabusadehhh@gmail.com>
Sent: Tuesday, April 30, 2019 20:45
To: Journal Editor <editor@sciencepubco.com>
Subject: Fwd: [IJET] [15833] Editor Decision

[Quoted text hidden]

UNIVERSITAS AHMAD DAHLAN

Kampus 1: Jln. Kapas No. 9 Yogyakarta

Kampus 2: Jl. Pramuka 42, Sidikan, Umbulharjo, Yogyakarta 55161

Kampus 3: Jl. Prof. Dr. Soepomo, S.H., Janturan, Warungboto, Umbulharjo, Yogyakarta 55164

Kampus 4: Jl. Ringroad Selatan, Yogyakarta

Kampus 5: Jl. Ki Ageng Pemanahan 19, Yogyakarta

Kontak

Email: info@uad.ac.id

Telp. : (0274) 563515, 511830, 379418, 371120

Fax. : (0274) 564604

[IJET] [15833]

Suparman P Mat <suparman@pmat.uad.ac.id>
To: Editorial Office <editor@sciencepubco.com>
Cc: Hind Abu Sadeh <hindabusadehhh@gmail.com>

Mon, May 6, 2019 at 11:54 AM

Dear Editor of IJET (UAE)

I have paid the publication fee for my paper entitled: "Change-Point Detection in Moving Average Model Using Reversible Jump MCMC Algorithm" by bank transfer.

Sender's name: Suparman Suparman
Address: Bolawen 01/21 Tlogoadi Mlati Sleman Yogyakarta INDONESIA
Amount: 200 USD
Payment date: May 6, 2019
Paper ID: 15833
Author name: Suparman Suparman

Enclosed, I send proof of bank transfer.

Best regards,
Dr. Suparman

On Thu, May 2, 2019 at 3:46 PM <editor@sciencepubco.com> wrote:

After payment, we will need 1-2 weeks to publish your paper.

From: hind abusadeh <hindabusadehhh@gmail.com>
Sent: Tuesday, April 30, 2019 20:45
To: Journal Editor <editor@sciencepubco.com>
Subject: Fwd: [IJET] [15833] Editor Decision

----- Forwarded message -----

From: **Suparman P Mat** <suparman@pmat.uad.ac.id>
Date: Tue, Apr 30, 2019 at 5:55 PM
Subject: Re: [IJET] [15833] Editor Decision
To: Hind Abu Sadeh <hindabusadehhh@gmail.com>

Dear Editorial Office,

I would like to thank you for your information. Attached, I sent the final version of my paper (ID Paper: 15833). If I pay a publication fee, proof of payment is sent by email ? After payment, when will my paper be published?

Best regards,

Dr. Suparman

On Fri, Mar 29, 2019 at 5:56 PM Editorial Team <ijet@sciencepubco.com> wrote:

Dear Suparman Suparman:

We are happy to inform you that after positive referee reports your paper "Change-Point Detection in Moving Average Model Using Reversible Jump MCMC

Algorithm" has been accepted for publication in International Journal of Engineering & Technology.

Please send by Email the Latex or Word file of the final version of your paper according to the Journal format as soon as possible.

In order to proceed to the next step of publication please visit:
<http://www.sciencepubco.com/index.php/index/about/payment>

Your cooperation is greatly appreciated.
Yours sincerely,

Editorial office
Science Publishing Corporation
Dubai, UAE

Reviewer B:

The authors are expected to clearly identify and demonstrate the novel contributions of their paper, this would justify their work. A combination of theoretical and experimental methods, where applicable, should be employed and clearly described in the paper. The conclusions should be substantial and well supported by analysis and results.

The quality of the English and of the artwork has to be in line with the standards of the Journal. The presentation should be clear and focused on the novel elements.

International Journal of Engineering & Technology
<http://www.sciencepubco.com/index.php/ijet>

UNIVERSITAS AHMAD DAHLAN

Kampus 1: Jln. Kapas No. 9 Yogyakarta

Kampus 2: Jl. Pramuka 42, Sidikan, Umbulharjo, Yogyakarta 55161

Kampus 3: Jl. Prof. Dr. Soepomo, S.H., Janturan, Warungboto, Umbulharjo, Yogyakarta 55164

Kampus 4: Jl. Ringroad Selatan, Yogyakarta

Kampus 5: Jl. Ki Ageng Pemanahan 19, Yogyakarta

Kontak

Email: info@uad.ac.id

Telp. : (0274) 563515, 511830, 379418, 371120

Fax. : (0274) 564604



Remittance receipt IJET UAE 15833 Suparman.pdf
258K

[IJET] Change-Point Detection in Moving Average Model Using Reversible Jump MCMC Algorithm

Editorial Team <ijet@sciencepubco.com>

Mon, May 13, 2019 at 8:05 AM

Reply-To: Suparman Suparman <suparman@pmat.uad.ac.id>

To: Eric Lui <emlui@syr.edu>

Dear Prof. Dr. Eric Lui,

I have paid the publication fee for my paper entitled: "Change-Point Detection in Moving Average Model Using Reversible Jump MCMC Algorithm" by bank transfer.

Sender's name: Suparman Suparman

Address: Bolawen 01/21 Tlogoadi Mlati Sleman Yogyakarta INDONESIA

Amount: 200 USD

Payment date: May 6, 2019

Paper ID: 15833

Author name: Suparman Suparman

Attached, I send proof of bank transfer.

Best regards,
Dr. Suparman

International Journal of Engineering & Technology<http://www.sciencepubco.com/index.php/ijet>**Remittance receipt IJET UAE 15833 Suparman.pdf**
258K

[IJET] [15833] Copyediting Review Request

editor@sciencepubco.com <editor@sciencepubco.com>
To: Suparman P Mat <suparman@pmat.uad.ac.id>

Wed, May 22, 2019 at 2:27 PM

Dear Author:


Please edit your paper using the copyedit version (the attached file) **IF NEEDED** and return it to us as soon as possible.

This is the last opportunity to make substantial copyediting changes to your paper.

Thank you for your contribution to this journal.

Yours,

Editorial office

 **IJET_15833.docx**
184K

[IJET] [15833] Copyediting Review Request

Suparman P Mat <suparman@pmat.uad.ac.id>
To: Editorial Office <editor@sciencepubco.com>

Wed, May 22, 2019 at 6:15 PM

Dear Editorial Office,

Attached, I sent back the copyedit version that I agreed to. I hope that my paper will be published on the IJET UAE as soon as possible. Thank you very much for your help and cooperation.

Warm regards,
Dr. Suparman

[Quoted text hidden]



IJET_15833_ok.docx
183K

[IJET] [15833] Congratulations

editor@sciencepubco.com <editor@sciencepubco.com>
To: Suparman P Mat <suparman@pmat.uad.ac.id>

Mon, May 27, 2019 at 7:42 PM

Dear Author:

Congratulations

Please check your published paper:

<https://www.sciencepubco.com/index.php/ijet/issue/view/390>

Yours,

Journal Manager