研究業績リスト

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Contents

1 Publications

1.1 Peer Reviewed Manuscripts (English)

26. Yuzo Maruyama, Takeru Matsuda and Toshio Ohnishi (2019+). Harmonic Bayesian prediction under α-divergence. to appear in IEEE Transactions on Information Theory. DOI pdf.
25. Yuzo Maruyama and William E. Strawderman (2019+). Admissible Bayes equivariant estimation of location vectors for spherically symmetric distributions with unknown scale. to appear in Annals of Statistics. Arxiv.
24. Min Wang and Yuzo Maruyama (2018). Posterior consistency of g-prior for variable selection with a growing number of parameters. Journal of Statistical Planning and Inference, **196**, 19-29. DOI

23. Yuzo Maruyama and William E. Strawderman (2017). A sharp boundary for SURE-based admissibility for the Normal means problem under unknown scale. Journal of Multivariate Analysis, **162**, 134-151. DOI Arxiv
22. Min Wang and Yuzo Maruyama (2016). Consistency of Bayes factor for nonnested model selection when the model dimension grows. Bernoulli, **22**, 2080-2100. DOI Arxiv
21. Yuzo Maruyama and William E. Strawderman (2014). Robust Bayesian variable selection in linear models with spherically symmetric errors. Biometrika, **101**, 992-998. DOI Arxiv
20. Aurélie Boisbunon and Yuzo Maruyama (2014). Inadmissibility of the best equivariant predictive density in the unknown variance case. Biometrika, **101**, 733-740. DOI Arxiv
19. Edward, I. George and Yuzo Maruyama (2014). Posterior odds with a generalized hyper-g prior. Econometric Reviews, **33**, 251-269. DOI
18. Yuzo Maruyama and William E. Strawderman (2013). Improved robust Bayes estimators of the error variance in linear models. Journal of Statistical Planning and Inference, **143**, 1091-1097. DOI Arxiv
17. Yuzo Maruyama and William E. Strawderman (2012). Bayesian predictive densities for linear regression models under α-divergence loss: some results and open problems. IMS Collections, **8**, 42-56. DOI
16. Yuzo Maruyama and Edward, I. George (2011). Fully Bayes Factors with a Generalized g-prior. Annals of Statistics, **39**, 2740-2765. DOI
15. Yuzo Maruyama (2009). An admissibility proof using an adaptive sequence of smoother proper priors approaching the target improper prior. Journal of Multivariate Analysis, **100**, 1845-1853. DOI
14. Yuzo Maruyama and William E. Strawderman (2009). An extended class of minimax generalized Bayes estimators of regression coefficients. Journal of Multivariate Analysis, **100**, 2155-2166. DOI
13. Yuzo Maruyama and Akimichi Takemura (2008). Admissibility and minimaxity of generalized Bayes estimators for spherically symmetric family. Journal of Multivariate Analysis, **99**, 50-73. DOI
12. Yuzo Maruyama (2007). Some notes on improving upon the James-Stein estimator. Journal of Statistical Studies, **26**, 77-84. Arxiv
11. Yuzo Maruyama and William E. Strawderman (2006). A new class of minimax generalized Bayes estimators of a normal variance. Journal of Statistical Planning and Inference, **136**, 3822-3836. DOI
10. Yuzo Maruyama and William E. Strawderman (2005). A new class of generalized Bayes minimax ridge regression estimators. Annals of Statistics, **33**, 1753-1770. DOI
9. Yuzo Maruyama and Katsunori Iwasaki (2005). Sensitivity of minimaxity and admissibility in the estimation of a positive normal mean. Annals of the Institute of Statistical Mathematics,

57, 145-156. DOI

8. Yuzo Maruyama and William E. Strawderman (2005). Necessary conditions for dominating the James-Stein estimator. Annals of the Institute of Statistical Mathematics, **57**, 157-165. DOI
7. Yuzo Maruyama (2004). Stein's idea and minimax admissible estimation of a multivariate normal mean. Journal of Multivariate Analysis, **88**, 320-334. DOI
6. Yuzo Maruyama (2003). Admissible minimax estimators of a mean vector of scale mixtures of multivariate normal distributions. Journal of Multivariate Analysis, **84**, 274-283. DOI
5. Yuzo Maruyama (2003). A robust generalized Bayes estimator improving on the James-Stein estimator for spherically symmetric distributions. Statistics & Decisions, **21**, 69-78. DOI, pdf
4. Yuzo Maruyama (1999). Improving on the James-Stein estimator. Statistics & Decisions, **14**, 137-140. DOI, pdf
3. Yuzo Maruyama (1998). Minimax estimators of a normal variance. Metrika, **48**, 209-214. DOI
2. Yuzo Maruyama (1998). A unified and broadened class of admissible minimax estimators of a multivariate normal mean. Journal of Multivariate Analysis, **46**, 196-205. DOI, DOI for Corrigendum
1. Yuzo Maruyama (1997). A new positive estimator of loss function. Statistics & Probability Letters, **36**, 269-274. DOI

1.2 Peer Reviewed Manuscripts (Japanese)

1. Yuzo Maruyama (2007). A universal kriging predictor using shrinkage estimation. Journal of the Japanese Statistical Society: Series J, **37**, 151-160. CiNii

1.3 Technical Reports

6. Yuzo Maruyama and William E. Strawderman (2018). A Gaussian sequence approach for proving minimaxity: A Review. Arxiv, 1810.02088.
5. Yuzo Maruyama, Ryoko Tone and Yasushi Asami (2015). Method for Noise Addition for Individual Record Preserving Privacy and Statistical Characteristics: Case Study of Real Estate Transaction Data. Arxiv, 1506.05506.
4. Yuzo Maruyama (2015). An alternative to Moran's I for spatial autocorrelation. Arxiv, 1501.06260.
3. Yuzo Maruyama (2014). ℓ_p-norm based James-Stein estimation with minimaxity and sparsity. Arxiv, 1402.0302.
2. Yuzo Maruyama and William E. Strawderman (2012). A new Monte Carlo sampling in Bayesian probit regression. Arxiv, 1202.4339v3.

1. Yuzo Maruyama (2009). A Bayes factor with reasonable model selection consistency for ANOVA model. Arxiv, 0906.4329v2.

1.4 Non-reviewed Manuscripts (Japanese)

2. 丸山 祐造 (2007). 統計解析環境 R · 空間統計解析 · GIS. GIS NEXT,**21**, 56. info
1. 丸山 祐造, 竹村 彰通 (2007). 統計と特殊函数. 数学セミナー, **546**, 24-27. info

1.5 Book Chapters (Japanese)

2. 丸山 祐造 (2008). 第 6 章 空間統計学入門.「GIS の理論」（村山祐司, 柴崎亮介編）朝倉書店. info
1. 丸山 祐造 (2004). 第 4.2 節 ヘドニック型価格指数へのリッジ回帰推定量の適用.「空間情報科学のパイオニア」（岡部篤行編）. Sinfonica 研究叢書. info

1.6 Doctor Thesis

"Minimax admissible estimation of a multivariate normal mean
and improvement upon the James-Stein estimator". UT Repository, pdf
Graduate School of Economics, University of Tokyo, December 2000.
Supervisor: Tatsuya Kubokawa, Mathematics Genealogy Project

2 Presentation

2.1 Invited Presentation (English)

18. [2019] Ensemble minimaxity of James-Stein estimators. the "New and Evolving Roles of Shrinkage in Large-Scale Prediction and Inference" workshop, Banff International Research Station, Canada.
17. [2017] Equivariant Admissibility for the Normal Means Problem Under Unknown Scale. The Third Annual Kliakhandler Conference: International Conference on Bayesian Inference in Statistics and Statistical Genetics, Michigan Technological University, Michigan.
16. [2017] Harmonic Bayesian prediction under alpha-divergence. The 1st International Conference on Econometrics and Statistics (EcoSta 2017), Hong Kong University of Science and Technology, Hong Kong.
15. [2016] Harmonic Bayesian prediction under alpha-divergence. 9th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2016), University of Seville, Spain.
14. [2016] Harmonic Bayesian prediction under alpha-divergence. International Conference on Statistical Distributions and Applications (ICOSDA 2016), Crowne Plaza, Niagara Falls, Canada.
13. [2015] Inadmissibility of the best equivariant predictive density in the unknown variance case. 2015 ICSA China Statistics Conference, Shanghai Jianguo Hotel, China.
12. [2015] ℓ_p-norm based James-Stein estimation with minimaxity and sparsity. 3rd Meeting on Statistics, Athens University, Greece.
11. [2013] Posterior inference and model selection of Bayesian probit regression. Statistics department seminar, Università Cattolica del Sacro Cuore, Italy.
10. [2013] Posterior inference and model selection of Bayesian probit regression. International Workshop on Bayesian Model Selection, East China Normal University, China.
9. [2013] A Bayes factor with reasonable model selection consistency for ANOVA model. International Workshop/Conference on Bayesian Theory and Applications, Banaras Hindu University, India.
8. [2011] Robust Bayesian variable selection with sub-harmonic priors. "O-Bayes11", the 2011 International Workshop on Objective Bayes Methodology, East China Normal University, China.
7. [2010] Fully Bayes Model Selection with a Generalized g-Prior. Statistics department seminar, Rutgers University.
6. [2008] A new Bayesian variable selection under the regression model – A g-prior extension for $p > n$ –. Statistics department seminar, University of Pennsylvania.

5. [2008] A new Bayesian variable selection criterion based on a g-prior extension for $p > n$. Statistics department seminar, University of British Columbia.
4. [2006] A new class of generalized Bayes minimax ridge regression estimators. Statistics department seminar, Rutgers University.
3. [2005] A new class of generalized Bayes minimax ridge regression estimators. Statistics department seminar, University of British Columbia.
2. [2003] A new class of minimax generalized Bayes estimators of a normal variance. Statistics department seminar, University of British Columbia.
1. [2002] Stein's idea and minimax admissible estimation of a multivariate normal mean. Statistics department seminar, Rutgers University.

2.2 Invited Presentation (Japanese)

1. [2001] 多変量正規平均ベクトルに対する縮小推定量について．**日本数学会特別講演**．九州大学．info

2.3 Invited Discussant (English)

1. [2013] For "Hierarchical Bayes, MAP Estimators, and Minimax Concave Penalized Likelihood Estimation" by Martin Wells. "O-Bayes13", the 2013 International Workshop on Objective Bayes Methodology, Duke University, Durham

2.4 Presentation (English)

15. [2018] Method for noise addition for individual record preserving privacy and statistical characteristics: Case study of real estate transaction data. Kanazawa Workshop on Statistical Disclosure Control, Kanazawa. (January 21, 2018)
14. [2017] Harmonic Bayesian prediction under alpha-divergence. Joint Statistical Meetings, Baltimore Convention Center.
13. [2013] (Poster Presentataion) A predictive Stein's effect even in the low-dimensional case. "O-Bayes13", the 2013 International Workshop on Objective Bayes Methodology, Duke University, Durham.
12. [2012] Robust Bayesian variable selection with sub-harmonic priors. Joint Statistical Meetings, San Diego.
11. [2012] Robust Bayesian variable selection with sub-harmonic priors. The 2nd Institute of Mathematical Statistics Asia Pacific Rim Meeting, Tsukuba.

10. [2012] (Poster Presentataion) Robust Bayesian variable selection with sub-harmonic priors. International Society for Bayesian Analysis 2012 Conference, Kyoto.
9. [2010] (Poster Presentataion) On a conjecture of Brown (1979, Annals of Statistics). Conference "Borrowing Strength: Theory Powering Applications", The University of Pennsylvania, Philadelphia.
8. [2010] gBF: A Fully Bayes Factor with a Generalized g-prior. Conference "The International Symposium on Statistical Analysis of Spatio-Temporal Data", Kamakura, Japan.
7. [2010] A Bayes factor with reasonable model selection consistency for ANOVA model. Joint Statistical Meetings, Vancouver.
6. [2010] (Poster Presentataion) Bayesian variable selection with sub-harmonic priors. Conference "Frontier of Statistical Decision Making and Bayesian Analysis", The University of Texas at San Antonio.
5. [2009] (Poster Presentataion) Perfect consistency of a Bayes factor for ANOVA model. "O-Bayes09", the 2009 International Workshop on Objective Bayes Methodology, The University of Pennsylvania, Philadelphia.
4. [2008] A g-prior extension for $p > n$. Workshop on current trends and challenges in model selection and related areas, Vienna.
3. [2008] (Poster Presentataion) A new Bayesian variable selection under the linear regression model. 10th Annual Winter Workshop "Bayesian Model Selection and Objective Methods", University of Florida.
2. [2006] Admissibility and minimaxity of generalized Bayes estimators for spherically symmetric family. Joint Statistical Meetings, Seattle.
1. [2002] A new class of minimax admissible estimators of a multivariate normal mean. East Asian Symposium on Statistics, Seoul National University.

2.5 Presentation (Japanese)

日本統計学会（統計関連学会連合大会）

9. [2018] 東京大学の統計データサイエンス教育及び 6 大学コンソーシアムの取り組みについて，中央大学.
8. [2017] 分散未知の多変量正規分布の平均ベクトル推定における許容的なベイズ共変推定量，南山大学.
7. [2014] ℓ_p-norm based James-Stein estimation with minimaxity and sparsity，東京大学.
6. [2009] ANOVA モデルで水準数が増える場合のベイズ型モデル選択規準の一致性について，同志社大学.
5. [2007] 正規線形回帰モデルに対する新たなベイズ型モデル選択基準，神戸大学.

4. [2003] 正規分布の正の平均の推定におけるミニマクス性と許容性のロバストネス．名城大学．
3. [2000] Another Stein's estimator: minimaxity and admissibility．北海道大学．
2. [1997] 正規平均ベクトルに対するミニマクスで許容的な推定量について．大阪大学．
1. [1996] James-Stein 推定量の改良について．幕張メッセ．

日本数学会

9. [2007] 球面対称分布の位置母数ベクトルの推定問題における許容性について．埼玉大学．
8. [2004] A new class of generalized Bayes minimax ridge regression estimators．筑波大学．
7. [2004] Necessary conditions for dominating the James-Stein estimator．筑波大学．
6. [2003] Simple generalized Bayes estimators with decision-theoretic goodness．東京大学．
5. [2002] A robust generalized Bayes estimator improving on the James-Stein estimator．明治大学．
4. [2000] A certain inadmissible minimax estimator of a positive normal mean．京都大学．
3. [2000] Admissible minimax estimators of a mean vector of scale mixtures of multivariate normal distributions．早稲田大学．
2. [1999] Scale mixtures of multivariate normal distribution の平均ベクトルの推定について．広島大学．
1. [1997] 正規平均ベクトルに対するミニマクスで許容的な推定量について．信州大学．

科学研究費シンポジウム

12. [2017] 重回帰分析の決定係数と t 値を保存するデータ秘匿法.「公的大規模データの利用におけるプライバシー保護の理論と応用」，統計数理研究所.
11. [2010] 回帰分析のいくつかの統計量を保存する変換について.「官庁統計データの公開における諸問題の研究」，統計数理研究所.
10. [2009] 重回帰分析の利用を前提とした個票データの秘匿措置について.「官庁統計データの公開における諸問題の研究」，統計数理研究所.
9. [2009] A Bayes factor with reasonable model selection consistency for ANOVA model.「統計科学の数理と応用」，岡山国際交流センター.
8. [2008] Extending the g-prior for Bayesian model selection.「時空間現象に対する統計科学モデルの構築及び解析に関する組織的研究」，沖縄青年会館.
7. [2007] 線形回帰モデルにおけるベイズ型変数選択規準.「統計的モデリングの方法と理論」，一橋大学.
6. [2007] 線形回帰モデルにおけるベイズ型変数選択規準.「時空間現象に対する統計科学モデルの構築及び解析に関する組織的研究」，岡山国際交流センター.
5. [2004] MSE を改善する安定したリッジ回帰推定量について.「統計科学の理論と応用の新展開」，九州大学.

4. [2002] 多変量正規分布の平均ベクトルの推定～ある推定量の性質～.「統計的逐次推測理論とその応用」, 新潟大学.
3. [2001] 球面対称分布のもとでのスタイン現象について.「非正規性での統計理論とその応用」, 横浜市立大学.
2. [1999] Admissible minimax estimators of a mean vector of scale mixtures of multivariate normal distributions.「統計的推測理論とその応用」, 熊本大学.
1. [1997] 多変量正規分布の平均ベクトルの推定について.「推定論とその応用の研究」, 統計数理研究所.

京大数理解析研究所研究集会

5. [2016] ℓ_p-norm based James-Stein estimation with minimaxity and sparsity.「Statistical Inference on Divergence Measures and Its Related Topics」研究会
4. [2010] A Bayes factor with reasonable model selection consistency for ANOVA model.「Statistical Experiment and Its Related Topics」研究会.
3. [2008] Extending the g-prior for Bayesian model selection.「A Bayesian Approach to Statistical Inference and Its Related Topics」研究会.
2. [2004] A new class of generalized Bayes minimax ridge regression estimators.「Interval Estimation and Its Related Topics」研究会.
1. [2003] Another minimax generalized Bayes estimators of a normal variance.「Approximations to the Statistical Distributions」研究会.

東京大学統計学輪講

18. [2018] Admissible Bayes equivariant estimation of location vectors for spherically symmetric distributions with unknown scale
17. [2016] Harmonic Bayesian prediction under alpha-divergence
16. [2014] minimaxity with sparsity and tail minimaxity with more sparsity
15. [2012] プロビット回帰モデルにおけるベイズ統計的推測
14. [2010] ANOVA モデルに対する新たなベイズ型モデル選択規準の提案
13. [2009] 正規線形回帰モデルに対する Bayesian Model Selection について
12. [2008] 線形回帰モデルにおけるベイズ型変数選択基準
11. [2007] 予測分布に関連した縮小推定及びベイズ型変数選択規準
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6. [2002] positive normal mean の推定
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4. [1997] 多変量正規分布の平均ベクトルの推定について
3. [1996] James-Stein 推定量の改良について
2. [1995] 多変量正規分布の平均と分散の推定
1. [1994] 検定の局所最適性

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7. [2012] プロビット回帰モデルにおけるベイズ統計的推測
6. [2010] gBF: A Fully Bayes Factor with a Generalized g-prior
5. [2007] 正規線形回帰モデルにおける新たなベイズ型変数選択規準
4. [2004] リッジ回帰推定量とスタイン問題
3. [2000] 統計的決定理論: 許容性とミニマクス性
2. [1999] Normal scale mixture model の平均ベクトルの推定について
1. [1998] 多変量正規分布の平均ベクトルの推定について

その他の講演

11. [2018] 東京大学の統計データサイエンス教育及び 6 大学コンソーシアムの取り組みについて．滋賀大学データサイエンスフォーラム 2018「日本の大学及び大学院におけるデータサイエンス教育の現状と展望」，滋賀大学彦根キャンパス
10. [2017] 東京大学の統計教育の現状及び数理・データサイエンス教育拠点・コンソーシアムの進捗について．統計教育連携ネットワーク研究集会（拡大版 JINSE）「新たな時代を迎えた日本の統計教育」，滋賀大学彦根キャンパス
9. [2016] ヘドニック分析における価格変数の秘匿処理．空間情報科学研究センター CSIS DAYS 2016，東京大学柏の葉キャンパス駅前サテライト．
8. [2015] 空間自己相関の指標 Moran's I に関する研究．空間情報科学研究センター CSIS DAYS 2015，東京大学柏の葉キャンパス駅前サテライト．
7. [2010] ANOVA モデルに対する新たなベイズ型モデル選択規準の提案．東北大学経済学部・応用統計計量ワークショップ，東北大学．
6. [2009] カーネル推定とクリギングの関係 –理論的考察–．空間情報科学研究センター第 12 回年次シンポジウム．東京大学柏総合研究棟．（青山学院大学・岡部教授との共同研究）
5. [2007] R で空間統計解析．空間情報科学研究センター第 10 回年次シンポジウム．東京大学柏総合研究棟．
4. [2007] 線形回帰モデルにおける新たなベイズ型変数選択規準について．京都大学計量経済学セミナー．京都大学．

3. [2007] R で空間統計解析．CSIS Symposium「空間情報社会の到来：社会動向と空間統計学の普及」．東京大学山上会館．
2. [2003] ヘドニック型価格指数へのリッジ回帰推定量の適用．空間情報科学研究センター第 6 回シンポジウム．東京大学山上会館．
1. [2001] 小地域推定．空間情報科学研究センター第 4 回シンポジウム．東京大学山上会館．