

# 小笠原春彦名誉教授 略歴

生年月 1952年2月

## 学歴

1974年3月 東京大学教育学部教育心理学科卒業

## 職歴

1974年4月 日本国有鉄道入社

1976年4月－1987年3月 同 鉄道労働科学研究所主任研究員等

1987年4月－1995年5月 財団法人 鉄道総合技術研究所 主任研究員

1995年6月－2015年3月 小樽商科大学商学部教授（社会情報学科）

2015年4月－2017年3月 小樽商科大学商学部特任教授（社会情報学科）

2017年4月－現在 小樽商科大学客員研究員・名誉教授

## 留学

1981年9月－1982年9月 米国シカゴ大学大学院行動科学研究科方法論専攻  
(Committee on Methodology of Behavioral Research, Department of  
Behavioral Sciences, The University of Chicago)

## 学位

1992年12月 博士（学術、東京工業大学）学位取得

学位論文 “経時性等の補助情報を考慮した共分散構造モデルに関する研究”

2014年10月 博士（教育情報学、東北大学）学位取得

学位論文 “Applications of asymptotic methods in statistics to item response theory.”

### 学会における委員歴

- 1994年5月－現在 日本行動計量学会欧文誌（Behaviormetrika）編集委員  
2007年7月－現在 The Psychometric Society, Psychometrika, Associate Editor

### 受 賞

- 1991年8月 日本行動計量学会優秀賞  
2000年11月 社団法人日本心理学会研究奨励賞  
2015年9月 日本行動計量学会林知己夫賞（功績賞）  
2017年5月 日本計算機統計学会優秀賞

### 学術研究助成基金助成金（科研費）採択課題（研究代表者）

1999～2000年度

因子分析・主成分分析における回転解の安定性評価システムの開発

2002～2003年度

項目反応理論を用いたテスト等化法の教育統計学的研究及びソフトウェア開発

2004～2005年度

因子分析・構造方程式モデリングにおける漸近理論の応用

2006～2007年度

共分散構造における推定量の漸近展開と正規理論漸近頑健性の応用研究

2008～2010年度

共分散等を対象とした行動計量手法における漸近理論の応用

2011～2013年度

離散及び連続変量の行動計量分析における漸近理論の適用

2014～2016年度

行動計量分析における各種推定量の漸近的性質

2017～2019年度

モデル選択のための情報量規準の漸近的性質

ホームページ

<http://www.res.otaru-uc.ac.jp/~emt-hogasa/>, <http://www.geocities.jp/hogasa07/>

## 小笠原春彦名誉教授 研究業績

(著者が小笠原のみの場合は、著者名が省略されている)

### 学会誌等論文

- 1981 内田クレペリン検査におけるマルコフシンプレックス構造 心理学研究, 52 (3), 152-158.
- 1986 インターバッテリー法における因子変換 心理学研究, 57 (2), 75-82.
- 1989 Covariance structure analysis of continuously changing populations. *Behaviormetrika, No.25*, 15-33.
- 1989 刺激-反応データにおける順序カテゴリー間隔比例モデル 行動計量学, 17 (1), 1-15.
- 1990 Covariance structure model when the means and the covariances are functions of the third variable. *Japanese Psychological Research, 32* (1), 19-25.
- 1990 共分散潜在構造モデル 行動計量学, 18 (1), 13-27.
- 1991 石田英子・小笠原春彦・藤永保 「頭の良い人」の属性に関する比較文化的研究 - 6か国の頭の良さの因子構造比較 - 教育心理学研究, 39 (3), 28-36.
- 1991 潜在変数または顯在変数に関する尺度不变因子分析モデルのある拡張統計数理, 39 (1), 102-104.
- 1992 一般化ポアソン分布及びポリアー-エゲンベルガー分布の構造化パラメータを用いた誤答数のモデル 行動計量学, 19 (2), 1-13.
- 1993 多変量解析の最近の動向 4 共分散構造分析の諸モデル-連続的に変化する構造- 数理科学, 31 (2), 57-65.
- 1993 検査再検査間隔が個体毎に異なるデータにおける信頼性と安定性の推定 心理学研究, 64 (5), 369-377.
- 1995 Structural model of ability distribution in the item response theory.

- Behaviormetrika, 22 (1), 37-48.
- 1995 The gamma-gamma regression for the distribution model of event times. *Japanese Psychological Research*, 37 (2), 70-79.
- 1996 一般化ポアソン分布におけるテストデータ解析のためのパラメータの変換 心理学研究, 66 (6), 425-430.
- 1996 Rasch's multiplicative Poisson model with covariates. *Psychometrika*, 61 (1), 73-92.
- 1996 規準化オーソマックス法における因子負荷の標準誤差 行動計量学, 23 (2), 122-129.
- 1998 A factor analysis model for a mixture of various types of variables. *Behaviormetrika*, 25 (1), 1-12.
- 1998 Standard errors for rotation matrices with an application to the promax solution. *British Journal of Mathematical and Statistical Psychology*, 51 (1), 163-178.
- 1998 A log-bilinear model with latent variables. *Behaviormetrika*, 25 (2), 95-110.
- 1999 Standard errors for procrustes solutions. *Japanese Psychological Research*, 41 (2), 121-130.
- 1999 Standard errors for matrix correlations. *Multivariate Behavioral Research*, 34 (1), 103-122.
- 1999 規準化直接オブリミン解の標準誤差 心理学研究, 70 (4), 333-338.
- 1999 Negative binomial factor analysis. *Behaviormetrika*, 26 (2), 235-250.
- 2000 On the standard errors of rotated factor loadings with weights for observed variables. *Behaviormetrika*, 27 (1), 1-14.
- 2000 Some relationships between factors and components. *Psychometrika*, 65 (2), 167-185, (errata 65 (4), 551).
- 2000 Standard errors for the Harris-Kaiser Case II orthoblique solution. *Behaviormetrika*, 27 (2), 89-103.

- 2000 Asymptotic correlations between rotated solutions in factor analysis. *Behaviormetrika*, 27 (2), 105–123.
- 2000 Standard errors of the principal component loadings for unstandardized and standardized variables. *British Journal of Mathematical and Statistical Psychology*, 53 (2), 155–174.
- 2001 Standard errors of item response theory equating/linking by response function methods. *Applied Psychological Measurement*, 25 (1), 53–67.
- 2001 Marginal maximum likelihood estimation of item response theory (IRT) equating coefficients for the common-examinee design. *Japanese Psychological Research*, 43 (2), 72–82.
- 2001 Approximations to the distributions of fit indexes for misspecified structural equation models. *Structural Equation Modeling*, 8 (4), 556–574.
- 2001 Item response theory true score equatings and their standard errors. *Journal of Educational and Behavioral Statistics*, 26 (1), 31–50.
- 2001 Least squares estimation of item response theory linking coefficients. *Applied Psychological Measurement*, 25 (4), 373–383.
- 2001 Standard errors of fit indices using residuals in structural equation modeling. *Psychometrika*, 66 (3), 421–436.
- 2002 Exploratory second-order analyses for components and factors. *Japanese Psychological Research*, 44 (1), 9–19.
- 2002 Concise formulas for the standard errors of component loading estimates. *Psychometrika*, 67 (2), 289–297.
- 2002 Stable response functions with unstable item parameter estimates. *Applied Psychological Measurement*, 26 (3), 239–254.
- 2002 Asymptotic standard errors of estimated standard errors in structural equation modeling. *British Journal of Mathematical and Statistical*

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- 2003 Correlations among maximum likelihood and weighted/unweighted least squares estimators in factor analysis. *Behaviormetrika*, 30 (1), 63–86.
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- 2003 Oblique factors and components with independent clusters. *Psychometrika*, 68 (2), 299–321.
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- 910.
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- Methods*, 37 (7), 1051–1070.
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- cross covariance and correlation under nonnormality. *Annals of the Institute of Statistical Mathematics*, 61 (4), 995–1017.
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- 2013 Asymptotic properties of the Bayes and pseudo Bayes estimators of ability in item response theory. *Journal of Multivariate Analysis*, 114, 359–377.
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- 2013 Estimation of ability with reduced asymptotic mean square error in item response theory. *Journal of The Japan Statistical Society*, 43 (2), 187–202.
- 2014 Estimation of ability using pseudocounts in item response theory. *Behaviormetrika*, 41 (1), 131–146.
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- 2015 Bias adjustment minimizing the asymptotic mean square error. *Communications in Statistics – Theory and Methods*, 44 (16), 3503–3522.
- 2016 Asymptotic expansions for the estimators of Lagrange multipliers and associated parameters by the maximum likelihood and weighted score methods. *Journal of Multivariate Analysis*, 147, 20–37.

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- 2016 Matching pseudocounts for interval estimation of binomial and Poisson parameters. *Communications in Statistics – Theory and Methods*, 45 (17), 5166–5178.
- 2016 Asymptotic cumulants of some information criteria. *Journal of the Japanese Society of Computational Statistics*, 29, 1–25.
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- 2017 Extensions of Pearson's inequality between skewness and kurtosis to multivariate cases. *Statistics and Probability Letters*, 130, 12–16.
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### 分担執筆・事典・翻訳等

- 1988.12 東洋・梅本堯夫・芝祐順・梶田叡一（編） 現代教育評価事典（金子書房）の次の項目：内田クレペリン検査, 作業（式）検査（法），精神作業検査，U-テスト，検証的因子分析，サインテスト，適合度検定，直接確率法，プロクラステス法
- 1990.10 鉄道総研式識別性検査J-1001（成人用知能検査）手引・採点判定処理プログラム 日本・精神技術研究所
- 1992.12 柳井晴夫・小笠原春彦 共訳 R. L. リン編 教育測定学：L. S. フェルトとR. L. ブレナン著 第3章 信頼性 (pp.147-209) 学習評価研究所 (Feldt, L. S., & Brennan, R. L. 1989. Reliability. In R. L. Linn (Ed.) *Educational Measurement* (3rd ed., pp.105-146). New York: Macmillan.)
- 1999.1 中島義明（編集代表）心理学辞典 有斐閣 項目「因子分析」他9項目
- 1999.6 繁糸算男・柳井晴夫・森敏昭（編著）Q & Aで知る統計データ解析 DOs and DON'Ts サイエンス社 分担執筆
- 2002.7 日本認知科学会（編）認知科学辞典 共立出版 項目「多変量分散分析」他17項目
- 2008.1 繁糸算男・柳井晴夫・森敏昭（編著）Q & Aで知る統計データ解析 DOs and DON'Ts 第2版 サイエンス社 分担執筆

### 学会大会等における発表

170件以上