



Full CV for Per Bruun Brockhoff, March 2017

Professor, Statistics and Data Analysis
DTU Compute, Richard Petersens Plads, Building 324, DK-2800 Kgs. Lyngby, Denmark.

Per Bruun Brockhoff is Professor in statistics at the Department DTU Compute at the Technical University of Denmark (since 2004), and was Head of the Statistics Section (2008-2012). He was the Chairman of DSTS, the Danish Society for Theoretical Statistics (2003-2007), and Chairman of the Sensometrics Society (2006-2010). Professor Brockhoff co-authored around 90 peer reviewed scientific papers and 2 research books and 2 online text books with close to 4000 citations. His H-index is 32 and his i10-index is 59 (Google Scholar). The research books are both on Sensometrics: Statistics for Sensory and Consumer Science (with T. Næs and O. Tomic, John Wiley Sons, 2010), and Nonparametrics for Sensory Science: A More Informative Approach (with J.C.W. Rayner, D.J. Best and G.D. Rayner, Blackwell Publishing, USA, 2005). He is an Elected Member of the International Statistical Institute (ISI) (2005), was member of the editorial board of international journal Food Quality and Preference (2009-2010) and currently member of the editorial board of the international journal: Journal of Chemometrics. Since 2004 Professor Brockhoff has been involved in numerous externally funded projects (initiating involvement in more than one project pr year), supervise(d) 10 PhD projects and co-supervised another 5. Professor Brockhoff has 25 years of academic and industrial teaching experience (involved in more than 100 courses) and supervised more than 20 master projects and during these 25 years been giving on average 4 presentations pr. year in all parts of the World.

Professional

September 2009:

Professor (permanent) in Statistics at DTU Informatics, The Technical University (DTU), Denmark.

February 2008 – December 2012

Head of Statistics Section at DTU Informatics, The Technical University, Denmark.

September 2004 – August 2009:

Professor (“mso”) in Statistics at Informatics and Mathematical Modelling, The Technical University (DTU), Denmark.

May 1997:

Associate Professor in Statistics at Department of Mathematics and Physics, The Royal Veterinary and Agricultural University (KVL), Denmark.

March 1995:

Ph.D. in Statistics at Department of Mathematics and Physics, KVL.

January 1995:

Assistant Research Professor at Department of Mathematics and Physics, KVL.

October 1991:

Research Assistant at Centre for Advanced Food Studies, KVL.

September 1991:

Master in Statistics, Department of Theoretical Statistics, University of Aarhus, Denmark.

March 1989 - May 1990:

Statistical consultant at Department of Environmental Medicine, University of Aarhus, Denmark.

September 1984:

Started at Department of Theoretical Statistics, University of Aarhus, Denmark.

June 1983:

Graduated from 'Munkensdam Gymnasium' (highschool) in mathematics and physics, Kolding, Denmark.

Personal

Born 1964 in Vamdrup, Denmark. Lives in Værløse, Denmark.

Married with Lene Bruun Brockhoff, Head of Hedge Portfolio, Tryg Investments, Father of 3 children: Trine (1995), Fie (1998) and Julie (2000).

Projects involving external funding:

1. Discrimination testing in industry. Industrial contract, **2016-2017** (Project leader)
2. Industrial Pharmacometrics. Industrial contract, Novo Nordisk A/S, **2015-** (Project leader)
3. KvaliHøj - Effektiv fastlæggelse af kødprodukters holdbarhed med nyt IT-værktøj. Danish Meat Research Institute and other meat producing companies. Supported by GUDP, **2013-2016**. (Project partner)
4. Statistical analysis of boar taint data. Scientific contract with Danish Meat Research Institute, **2013-2014**. (Project leader)
5. Characterization of absorption enhancers for orally administered therapeutic peptides in tablet formulations – applying statistical learning, Industrial Ph.D. with Novo Nordisk A/S, **2013-2016**. (University project leader)
6. Towards evidence-based risk management of food allergies, FP7-KBBE-2012-6, **2013-2016**, (Project partner)
7. ConsumerCheck: Brugervenlig software og statistiske/kemometriske metoder til at kombinere sensorisk og supplerende produktinformation i forbrugeracceptstudier. (Project leader), **2010-2015**. Supported by DFFE.
8. Emotion Measurement in Food Choice: An inversed engineering approach. ESN Industry Network Partnership (**2010-2012**). (Project partner)
9. Food satisfaction – Understanding sensory drivers to eat well and in a sustainable healthy manner (SensWell). DSF Application – 15 mill. DKK, **2010-2015** (Project partner)
10. Optimizing product testing by sensometrics, psychometrics and statistics, Ph.D. project co-financed by Unilever Research, Vlardingem, **2010-2014** (Project leader)
11. Sensometrics, Quality assurance and optimal utilization of sensory profile data. Funded by Direktoratet for FødevarerErhverv, **2005-2009**. (Project leader)
12. Optimering af formalingsteknologi i cementindustrien. Industrial Ph.D. with IPL, DTU and F.L. Schmidt. **2007-2010** (Project partner)
13. Web based IT programme for prediction of growth of Clostridium Botulinum in meat products. Funded by Direktoratet for FødevarerErhverv, **2007-2009**. (Project partner)
14. Skræddersyede sensoriske hurtigmetoder til kvalitetsoptimering i kødindustrien, Funded by Direktoratet for FødevarerErhverv, **2007-2009**. (Project partner)
15. Chemometrics for chain data, Funded by Globaliseringsfonden (within DTU), **2007-2010**. (project leader)
16. In silico ADME classification of chemical (NCE) and biological (NBE) drug candidates. Industrial Ph.D. with Novo Nordisk A/S, **2003-2006**. (University project leader)
17. Commercial post educational courses in statistics, **2004-2013**. (Partner and leader)
18. Norfa summer school, **2005**. Marie Curie Summer School, **2008** (Partner in both)

Per BB in media (In Danish) (10 listed)

5. Statistik i gymnasiet. Claus Thorn Ekstrøm, Ernst Hansen og Per Bruun Brockhoff, BLOG, 5/11 2016
6. Polemikken om p-værdier. Claus Thorn Ekstrøm og Per Bruun Brockhoff, BLOG, 24/4 2016
7. Balladen om p-værdier, Synspunkt, Claus Thorn Ekstrøm og Per Bruun Brockhoff, Aktuel Naturvidenskab, 11/5 2016
8. Vi mangler eksperter i statistik. Information, 23/11 2015.

9. Statistikere dybt uenige: Får sorte fodboldspillere flere røde kort end hvide? Ingeniøren, 8/11 2015.
10. Sådan løser vi forskernes statistiske mareridt: Gør data til open source. Ingeniøren, 9/11 2015.
11. Hvad er mest sandsynligt - at blive dræbt i et flystyrt eller af en flodhest? Videnskab.dk, 20/3 2014.
12. Video-foredrag: Ølsmagning og statistik, Videnskab.dk, 12/9 2012.
13. Ølsmagning og Statistik, Danskernes Akademi på DR2 23. marts 2011.
14. Elever med statistisk gode smagsløg, Bornholmstidende, 20/3 2010

Research visits (19 visits listed)

1. **December 2011:**
College of Engineering, Ewha Womens University, Seoul, Korea, 5 days.
2. **July 2011:**
CESG, Dijon, France, 2 days.
3. **March 2011:**
Unilever Research, Port Sunlight, UK, 1 day.
4. **December 2010:**
Nofima Food, Ås, Norway, 1 day.
5. **August 2010:**
University of Lavras, Brazil, 3 days.
6. **February 2009:**
University of Florence, Italy, 2 days.
7. **June 2006:**
CESG, Dijon, France, 3 days.
8. **February 2001 - July 2001:**
CSIRO Centre of Mathematical and Information Sciences, Sydney, Australia, 6 months.
9. **June 2001:**
CSIRO Health Sciences and Nutrition, Adelaide, Australia, 1 day.
10. **June 2001:**
School of Mathematics and Applied Statistics, University of Wollongong, Australia 2 days.
11. **May 2001:**
CSIRO Centre of Mathematical and Information Sciences, Melbourne, Australia, 2 days.
12. **May 2001:**
Wagga Wagga Agricultural Institute, Wagga Wagga, Australia, 2 days.
13. **January 2000:**
Department of Statistics, Dortmund University, 5 days.
14. **February 1997:**
Department of Enology and Viticulture, UC Davis, California, USA, two weeks.
15. **April 1996:**
INRA, Dijon, France, one week.
16. **October 1993:**
MATFORSK, Ås, Norway, three weeks.
17. **January 1993 - July 1993:**
Division of Statistics, UC Davis, California, USA, 7 months.

18. **October 1992:**
MATFORSK, Ås, Norway, one month.
19. **September 1990 - December 1990:**
Study visit at Department of Statistics, University of Washington, USA, 4 months.

Talks (91 talks listed)

1. **November 2016**
Sensometrics – what is it? *Double lecture at Science Day at Rysensteen Highschool, Copenhagen, Denmark.*
2. **September 2016**
Sensometrics: Statistics, Psychometrics or Chemometrics? *Invited Keynote Presentation at Seventh European Conference on Sensory and Consumer Research, Dijon, France.*
3. **July 2016**
New aspects of the mixed assessor model. *Oral presentation at 13th Sensometrics Conference, Brighton, UK.*
4. **June 2016**
Visualizing multifactorial and multi-attribute effect sizes in linear mixed models with a view towards sensometrics, *Oral presentation at useR! Conference, Stanford, USA.*
5. **May 2016**
Statistics in chemical industry: Do we really need it? *Invited talk at: Science infusion series at Novozymes, Bagsværd, Denmark.*
6. **February and April 2016**
A few experiences with e-learning tools - for inspiration. At DTU Meetings with Danish politicians: *Chairman of the Parliament Committee on Education and Research and Minister of Education and Research Ulla Tørnæs, Lyngby, Denmark.*
7. **January 2016**
A few experiences with e-learning tools - for inspiration. *Invited talk at: DTU Electro Department Seminar, Gentofte, Denmark.*
8. **August 2015**
D-prime like interpretations of standard linear mixed model results. *11th Pangborn Sensory Science Symposium, Gothenburg, Sweden.*
9. **July 2014**
d-prime interpretation of standard sensory and consumer linear mixed model results. *12th Sensometrics Meeting, Chicago, USA.*
10. **March 2014**
Mixed models for sensory and consumer data. *13èmes Journées Agro-Industrie et Méthodes Statistiques Rabat Marocco.*
11. **August 2013**
Automated Mixed ANOVA Modelling of sensory and consumer data. *10th Pangborn Sensory Science Symposium, Rio, Brazil.*
12. **June 2013**
Recent advances in (open source) sensometrics analysis tools, *12th Workshop on Quality Improvement Methods, Dortmund, Germany.*
13. **February 2013**
When Data Distribution is non-Normal Probabilistic Multidimensional Scaling, PCA and Thurstonian Modelling, *Delta SenseLab, SenseCamp 2013, Hørsholm, Denmark.*

14. **November 2012**
Probabilistic Multidimensional Scaling, PCA and Thurstonian Modelling. *Yearly Meeting in Dansk Selskab for Kemometri (DSK)*, Nyborg, Denmark.
15. **July 2012**
Automated Mixed ANOVA Modelling of sensory and consumer data, *11th Sensometrics Meeting*, Rennes, France.
16. **May 2012**
Ækvivalenstestning, limits of agreement, basal statistik: (Hvordan) kan vi bruge det i kemometri?, *Meeting in Dansk Selskab for Kemometri (DSK)*, Copenhagen, Denmark.
17. **December 2011**
Analysis of sensory profile data: PanelCheck and a new ANOVA method, *Research lecture*, Ewha Womens University, Seoul, Korea.
18. **September 2011**
Accounting for scaling differences in Sensory Profile Data: Improved Mixed Model Analysis of Variance, *9th Pangborn Sensory Science Symposium*, Toronto, Canada.
19. **June 2011**
Taking the classical large audience university lecture online using tablet computer and web conferencing, *International CDIO Conference*, Lyngby, Denmark.
20. **June 2011**
Advanced statistical analysis of perceptual audio evaluation data. *Key Note Talk, Forum Acusticum 2011*, Aalborg, Denmark.
21. **May 2011**
Sensometrics for Food Quality. *Scandinavian Workshop on Imaging Food Quality 2011*, Ystad, Sweden.
22. **April 2011**
Taking the classical large audience university lecture online using tablet computer and web conferencing, *Inspiration Seminar*, DTU Nano, Denmark.
23. **March 2011**
Ølsmagning og Statistik, *TV lecture, National Danish Chanel: DR2*, Danskernes Akademi, 19 minutes.
24. **March 2011**
Sensometrics at DTU Informatics, *Research lecture*, Unilever Research Port Sunlight, UK.
25. **January 2011**
Tablet PCs and Adobe Connect in Lectures, *DTU Learning Lab tool youtube Video*: DTU, Denmark.
26. **October 2010**
Thurstonian and statistical models for sensory discrimination data, *Sensnet*, Svendborg, Denmark.
27. **August 2010**
Discrimination and similarity testing using sensR, *Invited 2h tutorial at Sensiber*, Sao Paolo, Brazil.
28. **August 2010**
Thurstonian and statistical models for sensory discrimination data, *Invited talk at Sensiber*, Sao Paolo, Brazil.
29. **August 2010**
Mixed models for Sensory Data, *Invited talk at Dep. of Statistics*, University of Lavras, Brazil
30. **May 2010**
Multivariate Analysis of Sensory Data, *MATLS Day*, DTU.

31. **March 2010:**
Hvad er statistik? *UNF lecture*, Bornholm Gymnasium, Rønne, Denmark.
32. **August 2009:**
Burning issues in sensometrics. Invited paper at *The 57th Session of the International Statistical Institute*, Durban, South Africa.
33. **March 2009:**
Hvad er statistik? *UNF lecture*, The Technical University, Denmark.
34. **October 2008:**
Quality of statistics – a DTU perspective. *DSTS ½ day meeting*, Copenhagen University.
35. **July 2008:**
Discussion of talk by D. Ennis: Hypothesis Testing for Equivalence defined on Symmetric Open Intervals. *9th Sensometrics Conference*, Brock University, Canada.
36. **July 2008:**
Accounting for scaling differences in sensory profile data. *9th Sensometrics Conference*, Brock University, Canada.
37. **March 2008:**
One day seminar on Sensometrics and PanelCheck. *Japanese Chemical Society, Arranged by ChemSensMatrix*, Tokyo, Japan.
38. **January 2008:**
Accounting for scaling differences in sensory profile data. *10th European Symposium on Statistical Methods for the Food Industry*, Louvain-La-Neuve, Belgium.
39. **May 2007:**
Sensometrics: Introduction and research examples, *2-day meeting of Danish Society of Theoretical Statistics*, Ålborg, Denmark.
40. **June 2006:**
From sensory data to statistical developments, *38emes Journees de Statistique*, Clamart, France.
41. **May 2006:**
Multilevel models for sensory data. *4th International Chemometrics Research Meeting (ICRM)*, Veldhoven, Holland.
42. **December 2005:**
Sensometrics: Introduction and Research Examples, *Professorforeningen*, DTU, Lyngby, Denmark.
43. **December 2005:**
Sensometrics: Introduction and Research Examples, *Danish Slaughteries*, Axeltorv, Copenhagen, Denmark.
44. **November 2005:**
Difference tests, thurstonian and statistical models, *Sensory Science Seminar Series*, IFV, KVL, Copenhagen, Denmark.
45. **September 2005:**
ANOVA with Examples. *Kemometri i bredden og dybden. Dansk Selskab for kemometri, Ingeniørhuset*, Copenhagen, Denmark.
46. **August 2005:**
Analysis of Salmon Data using Analysis of Variance and preference-mapping-like analysis. *6th Pangborn Sensory Science Symposium*, 7-11 August, Harrogate, UK.
47. **June 2005:**
Sensory Difference Tests. *The 70th International Meeting of the Psychometrics Society*.

48. **June 2005:**
Analysis of Sensory Data - What is Sensometrics? *Weurman Flavour Research Symposium*, Roskilde, Denmark.
49. **October 2004:**
Sensometrics: Introduction and research Examples. *Biotech Forum Science Conference*, Copenhagen, Denmark..
50. **July 2004:**
Thurstonian models for sensory discrimination tests as generalized linear models. *7th Sensometrics Conference*, Davis, CA, USA.
51. **June 2004:**
Partitioning Anderson's statistic for tied data. *Nordstat 2004: Nordic Meeting of Mathematical Statistics*, Jyväskylä, Finland.
52. **May 2004:**
The statistical analysis of descriptive sensory data. *B-ENBIS Workshop: Statistical tools for sensory analysis: A methodological and applied tour*. Louvain La-Neuve, Belgium.
53. **May 2004:**
Sensory and Sensometrics: What is this? *B-ENBIS Workshop: Statistical tools for sensory analysis: A methodological and applied tour*. Louvain La-Neuve, Belgium.
54. **July 2003:**
The design of replicated difference test. *5th Pangborn Sensory Science Symposium*, Boston, USA.
55. **January 2003:**
Repeated binomial data in sensometrics: Models, Power and variability. *Symposium i anvendt statistik, Copenhagen, Denmark*.
56. **November 2002:**
(In Danish) Kan man smage forskel på Tuborg og Carlsberg? *Regional Meeting of highschool mathematics teachers*, Copenhagen, Denmark.
57. **October 2002:**
(In Danish) Betydning af måleusikkerheder for simple korrelationer, *Den Store Kemometridag*, Kolding, Denmark.
58. **August 2002:**
The statistical power of replications in discrimination tests. *6th Sensometrics Meeting*, Dortmund, Germany.
59. **September 2001:**
Discussion contribution at DSTS Halfday Meeting on Chemometrics, KVL, 27/9
60. **July 2001:**
Statistical Analysis of sensory profile data: Extending analysis of variance models. *Department Seminar*, CSIRO Mathematical Information Sciences, Sydney (and Adelaide by phone broadcast), Australia.
61. **June 2001:**
Agricultural Statistics in Denmark: Activities and Examples *Illawarra Statistics Group Seminar*, University of Western Sydney, Campbelltown, Australia.
62. **May 2001:**
Statistical Analysis of sensory profile data: Extending analysis of variance models. *Department Seminar*, School of Mathematical Sciences, Australian National University and CSIRO Mathematical Information Sciences, Canberra, Australia.

63. **May 2001:**
Statistical Analysis of sensory profile data: Extending analysis of variance models. *Department Seminar*, Wagga Wagga Agricultural Institute, Wagga Wagga, NSW, Australia.
64. **May 2001:**
Statistical Analysis of sensory profile data: Extending analysis of variance models. *Department Seminar*, CSIRO Mathematical Information Sciences, Melbourne, Australia.
65. **May 2001:**
Statistical Analysis of sensory profile data: Extending analysis of variance models. *Department Seminar*, School of Mathematics and Applied Statistics, University of Wollongong, Australia.
66. **August 2000:**
Sensory Profile Average Data: Combining Mixed Model ANOVA with Measurement Error methodology. *5th Sensometrics Meeting*, Columbia, Missouri, USA.
67. **January 2000:**
Analysing sensory profile data: A dull exercise or a statistical challenge? *Department Seminar*, Department of Statistics, University of Dortmund.
68. **January 2000:**
Multivariate analysis of sensory data: is CVA better than PCA? *Levnedsmiddelkongres 2000*, Copenhagen, Denmark.
69. **August 1999:** Can we make multiway methods successful for analysing sensory profile data? Invited discussion contribution: *52 Session of the International Statistical Society*, Helsinki, Finland.
70. **August 1998:**
Statistical testing of individual differences in sensory profiling. Workshop: Monitoring and tracking the performance of descriptive panels. *The 3rd Pangborn Sensory Science Symposium*, Ålesund, Norway.
71. **March 1998:**
Analysis of "the same data set". AIR-CAT Workshop: Statistical Modelling of Consumer Data, Geilo, Norway.
72. **December 1997:**
Statistical testing of individual differences in sensory profiling. *5th Conference on Food Industry and Statistics*, Versailles, France.
73. **June 1997:**
A combined application of latent class regression, random coefficient regression and principal component regression. *International Biometric Society Nordic Regional Meeting*, Ås, Norway.
74. **February 1997:**
Random effects in sensory data. *Department Seminar*, Department of Enology and Viticulture, University of California, Davis, USA.
75. **February 1997:**
A combined application of latent class regression, random coefficient regression and principal component regression. *Department Seminar*, Division of Statistics, University of California, Davis, USA.
76. **June 1996:**
Heterogeneity in consumer's preference data -- a mixed linear latent class principal component regression approach (together with C.S. Poulsen). *Third Sensometrics Meeting*, Nantes, France.
77. **December 1995:**
Generalized linear models in sensometrics. *4th Conference on Food Industry and Statistics*, Dijon, France.
78. **August 1995:**
Statistical analysis of sensory data. *Ninth European Young Statisticians Meeting*, Rotterdam, The Netherlands.

79. **August 1995:**
Growth curve analysis. Workshop on Sensometrics at Second Pangborn Sensory Science Symposium, Davis, USA.
80. **August 1995:**
ANOVA and assessor modelling. Workshop on Sensometrics at Second Pangborn Sensory Science Symposium, Davis, USA.
81. **August 1995:**
Covariance component models applied to sensory data. *Second Pangborn Sensory Science Symposium*, Davis, USA.
82. **June 1995:**
Non-standard modelling of ANOVA-like data. *Nordic Regional Meeting in the International Biometric Society*, Gothenburg, Sweden.
83. **May 1995:**
Statistical analysis of sensory data. *2-day Meeting of the Danish Society of Theoretical Statistics, DSTS*, Frederiksberg, Denmark.
84. **May 1994:**
Statistisk analyse af sensoriske data. *Department Seminar*. Department of Biometry and Informatics, Danish Institute of Agricultural Sciences, Tjele, Denmark.
85. **January 1994:**
(In Danish) Brug af statistik ved bestemmelse af sensoriske tærskelværdier. *Levnedsmiddeldage, KVL*, Frederiksberg, Denmark.
86. **January 1994:**
Random effect threshold models for dose-response relations with repeated measurements. *Symposium i Anvendt Statistik*, Ålborg, Denmark.
87. **November 1993:**
(In Danish) Sammenligning af et norsk og et britisk sensorisk panel ved anvendelse af 3-vejs principal komponent analyse. *6. MAPP konference*, Middelfart, Denmark.
88. **August 1993:**
Modelling individual differences between assessors in sensory evaluations. *5th Symposium on Biometrical Problems in Agricultural, Forestry, and Animal Investigations*, Garpenberg, Sweden.
89. **May 1993:**
Statistical analysis of sensory data. University of California, Davis, USA.
90. **October 1992:**
Modelling scale differences between assessors in sensory evaluations. MATFORSK, Ås, Norway.
91. **August 1992:**
Modelling scale differences between assessors in sensory evaluations. *Industrial Application of Sensory Analysis*, Jægerspris, Denmark.

Teaching (>100 activities listed)

September 2016

Organizer and teacher of half day pre-conference tutorial: Mixed models using R. *Seventh European Conference on Sensory and Consumer Research*, Dijon, France.

July 2016

Organizer and teacher of half day pre-conference tutorial: USING THE R-PACKAGE SENSR FOR THE PLANNING AND ANALYSIS OF SIMILARITY AND DISCRIMINATION DATA. *13th Sensometrics Conference*, Brighton, UK.

July 2016

Organizer and teacher of half day pre-conference tutorial: Mixed models using R: lme4, lmerTest and SensMixed packages.. 13th *Sensometrics Conference*, Brighton, UK.

May 2016

Organizer and teacher of one-day external course on Statistics: *Seminar for the CDNA Centre, part of iNano*, Aarhus University, Himmerland Golf and Spa Resort, Denmark.

November 2015

Organizer and teacher of two-day course on Sensometrics: *Ewha Womens University*, Seoul, Korea.

August 2015

Organizer and main teacher of 5 day summer school, Ph.D. Course: The Analysis of Sensory and Consumer Data, DTU Compute, Lyngby, Denmark.

March 2014-2017 (6 times)

Co-organizer and co-teacher of new PhD course 02935 Introduction to applied statistics and R for PhD students, DTU Compute.

July 2014

Co-teacher of half day pre-conference course: Accounting for Scaling Effects in the Analysis of Sensory Data, Chicago, USA.

July 2014

Organizer and co-teacher of half day pre-conference course: Linear Mixed Effects Models for Multifactor Sensory and Consumer Data in R, Chicago, USA.

September 2013

Organizer and Co-teacher of 5 day summer school, Ph.D. Course: The Analysis of Sensory and Consumer Data, DTU Compute, Lyngby, Denmark.

November 2011

A 3 day commercial course on *Statistics for Sensory and Consumer Science*, Nofima, Ås, Norway.

August 2011

Organizer and Co-teacher of 7 day summer school, Ph.D. Course: The Analysis of Sensory, Consumer and Questionnaire Data, DTU Informatics, Lyngby, Denmark.

Spring 2010, 2011, 2012, 2013 and 2014 (5 times)

Lecturer in the statistics part of an international master course in Advanced Sensory Analysis and Sensometrics, Department of Dairy and Food Science, KVL (KU Life)

September 2009

A 1 day commercial course on Panelcheck in the industrial network ODIN, KU Life.

January-March 2009

Organizer and teacher of 6 module commercial post educational course in statistics for pharmacologists at Ferring Pharmaceuticals, Copenhagen, Denmark.

August 2008

Co-teacher and co-organizer of one week NORFA supported summer school, Ph.D. Course: Integrating sensory, consumer and marketing factors in product design, Reykjavik, Iceland, 17-21 August.

Autumn 2007-2016: (9 times)

Teacher of (partly) web based DTU course 02429 on Mixed Linear Models.

Spring 2007:

Lecturer of 1/3 of IMM Course 02581: Computational Data Analysis.

Spring 2005, 2007, 2008, 2009 and Autumn 2010, 2011, 2012, 2013, 2014, 2015, 2016: (11 times)

Lecturer in the statistics part of course in Sensory Analysis, Department of Dairy and Food Science, KVL (KU Life)

Autumn 2006:

Co-organiser and co-teacher of 9-week web based Master of Applied Statistics course ST113. (In collaboration with KU Life) and IMM course 02429.

Autumn 2005 and 2008

Lecturer 1/2 day at Module 5, Analysis of Quality, Master in Food Quality and Safety. IFV, KVL.

June 2005

Organiser and teacher of 1 day (out of 5) summer school, Ph.D. Course: The Ultimate Meal Experience, Grythyttan, Sweden, 30/5-4/6.

Spring 2005 and Spring 2007

Co-organiser and co-teacher of 9-week web based Master of Applied Statistics course ST116: Chemometrics and Multivariate Data Analysis, (In collaboration with KVL)

Spring 2005-2017 (13 times)

Co-Lecturer of course 27411 Biological data analysis and chemometrics, Biocentrum, DTU.

December 2004

Organiser and lecturer of 2 days sensometrics/statistics block of a course on sensory analysis at ETH, Zurich, Switzerland.

Autumn 2004-Spring 2017: (25 times)

Lecturer of introductory statistics course for civil engineers, Informatics and Mathematical Modelling, DTU.

Spring 2004:

Teacher of 14-week web based Ph.D. Course Mixed Linear Models and Master of Applied Statistics course ST113, Department of Mathematics and Physics, KVL.

Spring 2003:

Organiser and teacher of 6-week intensive web based Ph.D. Course Mixed Linear Models, Department of Mathematics and Physics, KVL.

November 2002 and October 2003:

Co-organiser and co-teacher of 1.5 days in-service course on Design of Experiments, LMC (Center for Advanced Food Studies), KVL.

Spring 2002:

Lecturer of 3-week intensive course 'Practical Statistical Data Analysis', Department of Mathematics and Physics, KVL.

Spring 2002:

Co-lecturer of Ph.D. course Statistics for Veterinarians, Department of Mathematics and Physics, KVL.

December 2001:

Co-organiser and teacher at DINA Research School workshop on Visualisation and Data Mining, 6-7. December.

September 2001:

Lecturer at one full day at Summer School on The Statistical Analysis of Sensory Data, given by the Italian Statistical Association (ISI) in Naples, 9.-12. September 2001.

January 2001:

Lecturer in Ph.D. Course Multivariate Analysis, Department of Mathematics and Physics, KVL

Autumn 2000:

Lecturer in Ph.D. Course Mixed Linear Models, Department of Mathematics and Physics, KVL.

June 1999:

Lecturer in one week NOVABA Ph.D. Course Practical Statistical Data Analysis, Latvia University of Agriculture, Jelgava, Latvia.

Spring 1998, 1999:

Lecturer in Ph.D. Course Multivariate Analysis and Random Effects, Department of Mathematics and Physics, KVL.

Autumn 1996, 1997, 1998, 1999, 2000 and 2001: (6 times)

Lecturer in Biostatistics for Veterinarians, Department of Mathematics and Physics, KVL.

June 1994 - June 2005:

Lecturer in the statistics part of 3-week intensive course in Sensory Analysis, Department of Dairy and Food Science, KVL.

September 1993 - September 1998: (6 times)

Lecturer in the statistics part of 3-days courses in Sensory Analysis, Dansk Sensorik Center, Jægerspris, Denmark.

October 1991 - December 1994:

Teaching Assistant at Department of Mathematics and Physics, KVL.

September 1987 - June 1991:

Teaching Assistant at Department of Theoretical Statistics, University of Aarhus, Denmark.

Ph.D. Project supervision

- 1. Autumn 2015 – Autumn 2018**
Advancing linear and non-linear mixed models in engineering sciences. (DTU Compute grant)
- 2. Spring 2013 – Spring 2016:**
Characterization of absorption enhancers for orally administered therapeutic peptides in tablet formulations – applying statistical learning. Industrial Ph.D. (Erhvervs Ph.d.) (together with Novo Nordisk A/S)
- 3. Spring 2013 – Spring 2017**
Sensometrics: Multivariate analysis and mapping of sensory and consumer data. (DTU Compute grant)
- 4. Spring 2013 – Spring 2016**
Modelling allergenic risk. (EU project iFAAM)
- 5. Spring 2010 – Spring 2015**
Sensometrics: Analysis of consumer preference data (ConsumerCheck project) (DFFE grant)
- 6. Autumn 2010 – Autumn 2016**
Optimizing product testing by sensometrics, psychometrics and statistics (Unilever co-financed)
- 7. Autumn 2008 – Spring 2012**
Ph.D. project in Sensometrics: Thurstonian and statistical models. (DTU Compute grant)
- 8. Autumn 2007 – Spring 2012**
Ph.D. project in Chemometrics: Analysis and modelling of chain data.(Globalization funds)
- 9. Autumn 2005 – Autumn 2009:**
Ph.D. project in Sensometrics. (PanelCheck projekt) (DFFE grant)
- 10. Spring 2003 – Spring 2006:**
Industrial Ph.D. (Erhvervs Ph.d.): In silico ADME classification of chemical (NCE) and biological (NBE) drug candidates (together with Novo Nordisk A/S)
- 11. Autumn 2006 – Autumn 2009**
Co-supervising 1 Industrial Ph.D. project (IPL, DTU and F.L. Schmidt): Optimering af formalingsteknologi i cementindustrien.

12. **Summer 2008 – Spring 2012**
Co-supervising 1 Ph.D. project in collaboration with DTU Food: Sammenhænge mellem kost- og aktivitetsvaner blandt danske børn.
13. **Summer 2008 – Spring 2012**
Co-supervising 1 Ph.D. project in collaboration with DTU Food: Web based dietary assessments.
14. **Summer 2009 – Summer 2012**
Co-supervising 1 Ph.D. project in collaboration with DTU Food: Rapid Sensory Methods.
15. **2011 –2015**
Co-supervising 1 Ph.D. project in collaboration with University of Lavras, Brazil. *Sensometrics*.

Other Project supervision

Autumn 2004 – Autumn 2013:

20 DTU Compute civil engineer master theses within statistics and data analysis.

Spring 2011

Industrial Master project, Novozymes, Denmark.

Spring 2011

Master project for internship project Agro Campus Ouest, Rennes: Developing an approach for the analysis of preference data.

Autumn 2005 – Spring 2009:

Three master projects in the Master of Applied Statistics (MAS) education (in collaboration with SDU).

Autumn 2005 – Spring 2006:

Master thesis at Biocentrum, DTU. (Co-supervisor)

Spring 2003:

Master thesis on Multivariate Analysis of Sensory Data.

1997-2003:

Numerous projects as part of applied statistics courses on master and Ph.D. level at the Department of Mathematics and Physics, KVL.

Other teaching related activities

2011-2015

Developed online video library with statistics lectures – in August 2015 the total views of these passed 500.000.

Spring 2007:

Awarded as “Teacher of the year” at IMM, DTU for teaching the introductory statistics course.

Spring 2006, Spring 2008 , Spring 2012, Spring 2013, Spring 2014, Spring 2015:

Nominated for the “Teacher of the year award” at DTU (without actually receiving the award).

Spring 2004:

Member of the joint KVL and DTU Study Council for the food science education..

Spring 2002:

Completed five day course on “Pedagogical and technical use of tools for web based teaching” offered by KVL.

August 2001 – august 2004:

KVL representative in a collaborative development of a new master education in applied statistics offered as a web based distance teaching programme starting September 2003.

June 1999:

Completed one day course on “Lecture methodology”, offered by Copenhagen University.

February 1998:

Nominated for the “Teacher of the year award” at KVL (without actually receiving the award).

1998-2000:

Member of the Study Council for the Veterinary Education.

Other activities

1. Member of the scientific committee of the 2017 the RBras/SEAGRO meeting in Lavras, Brazil.
2. Associate Editor of the Biometric Brazilian Journal, 2016-.
3. Completing 1.5 year management education programme at DTU, January 2013.
4. Reviewer for NSF research proposal in 2011.
5. Member of the Editorial Board of Food Quality and Preference, 2009-2010.
6. Offering R package sensR for the analysis of sensory discrimination data (<http://cran.r-project.org/web/packages/sensR/index.html>)
7. Member of the ILSI Europe Expert Group on *Allergic Reactions Registries*, August 2007-December 2008.
8. Member of the corps of evaluators (“Censorkorpset”) for both Food Science and Mathematics/Statistics, 2007-2010.
9. Elected ISI-member (ISI=International Statistical Institute), 7. November, 2005.
10. Co-editor of “Sensory Data” special issue of the Journal of Chemometrics, 2005.
11. Member of the Editorial Board of the Journal of Chemometrics, 2006-.
12. Chairman of the Danish Society of Theoretical Statistics (DSTS).(www.dsts.dk), 2003-2006.
13. Vice-chair of The Sensometrics Society (www.sensometrics.org), 2002-2006.
14. Chairman of The Sensometrics Society (www.sensometrics.org), 2006-.
15. Project leader for the statistics part of the statistics/chemometrics facility of LMC("LMC fællesfacilitet i kemometri og statistik") (Until September 2004)
16. Member of the Scientific Committee for the Fourth Pangborn Sensory Science Symposium, 2001, Dijon France.
17. Chairman of scientific committee for 21st Nordic Conference on Mathematical Statistics, Rebild, Denmark, 2006.
18. Chairman of the organising committee for '4th Sensometrics Meeting' in Copenhagen, 1998.
19. Member of the Scientific Committees for the 3rd, 4th, 5th, 6th, 7th, 8th and 9th Sensometrics Meetings in Nantes 1996, Copenhagen 1998, Columbia, Missouri 2000, Dortmund 2002 and Davis, California 2004, and Ås, Norway 2006, Canada 2008.
20. Co-Editor of '4th Sensometrics Meeting Special Issue' of 'Food Quality and Preference'.
21. Participant in the '9th European Young Statisticians Meeting' 1995.
22. Member of the committee for the '10th European Young Statisticians Meeting' 1997.

Referee for the journals:

1. PLOS ONE
2. Journal of Statistical Software
3. Scandinavian Journal of Statistics
4. Food Quality and Preference
5. American Journal of Enology and Viticulture
6. Journal of the Science of Food and Agriculture.
7. Journal of Electronic Imaging.
8. Computational Statistics & Data Analysis (Official journal of IASC)
9. Chemometrics & Intelligence Laboratory Systems
10. Journal of Applied Mathematics and Decision Sciences
11. Acta Veterinaria Scandinavica
12. Journal of the American Statistical Association (JASA)
13. Journal of Chemometrics.
14. BMC Neuroscience
15. European Food Research and Technology

Statistical consultant for

1. Novo Nordisk, 2015-
2. Various academic and industrial partners and customers of DTU Data Analysis, 2013-.
3. Bachelor, master and Ph.D. students at KVL(1991-2004) and DTU (2004-).
4. Researchers at KVL and DTU with special connection to LMC, The Centre for Advanced Food Studies, KVL and DTU, 1991-2004.
5. Medical researchers, University of Copenhagen. (Konsulent ved Østdansk sundhedsvidenskabeligt forskningsforums konsulentjeneste i statistik og forskningsmetodologi, Biostatistisk Afdeling, Københavns Universitet), 1999-2009.
6. The industry and external research institutions. (Senstat Consult, SE-no. 16 53 62 88, Åkandevej 6, 3500 Værløse, Denmark).

Academic evaluations at external institutions

1. Member of the Ph.D. committee for Kasper Knoblauch Christensen, Faculty of Science and Technology, Norwegian University of Life Sciences, April 2017.

2. Member of the Ph.D. committee for Anna Helga Jonsdottir, School of Engineering and Natural Sciences Faculty of Physical Sciences, Reykjavík, Iceland, March 2015.
3. Member of the Ph.D. committee for Maja Olsbjerg Larsen, Faculty of Health Science, University of Copenhagen, July 2014.
4. Member of the Ph.D. committee for Karin Kjeldahl, Faculty of Science, University of Copenhagen, January 2014.
5. Member of the 'Habilitation' committee for Dr. Michael Meyners, Dortmund University, February 2014.
6. Reviewing applications for The Swedish Foundation for Strategic Research, Call "Applied Mathematics 2013"
7. Member of the Ph.D. committee for Cecile Bavay, Groupe ESA, UPSP Grappe, Angers, France January 2013.
8. Member of the committee for the evaluation of 8 candidates for a full professor position in Business and Quantitative Methods at, Aarhus University, January 2013.
9. Member of the Ph.D. committee for Hamid Babamoradi, Faculty of Science, University of Copenhagen, November 2012.
10. Member of the committee for the evaluation of a candidate for an adjunct professor position in statistics at Institute for Mathematics, Ålborg University, Spring 2011.
11. Member of the committee for the evaluation of a candidate for a part time associate professor position at Clinical Institute, Århus University, Spring 2011.
12. Member of the committee for the evaluation of two candidates for an assistant/associate professor in Applied Chemometrics and Multivariate Analysis at Department of Food Science, Faculty of Life Sciences, Copenhagen University, Spring 2010.
13. Member of the committee for the evaluation of four candidates for a professor position in biostatistics at Department of Basic Sciences and Environment, Faculty of Life Sciences, Copenhagen University, Spring 2010.
14. Member of the committee for the evaluation of two candidates for an associate professor position in statistics at Department of Basic Sciences and Environment, Faculty of Life Sciences, Copenhagen University, Spring 2009.
15. Member of the committee for the evaluation of a candidate for an associate professor position in sensory science at Department of Food Science, Faculty of Life Sciences, Copenhagen University, Spring 2009.
16. Member of the committee for the evaluation of two applicants for an associate professor position in biostatistics at Biostatistical Department, Copenhagen University, Autumn 2008.
17. Member of the committee for the evaluation of Uffe Høgsbro Thygesen as senior scientist Danish Fisheries Research, Autumn 2006.
18. Member of the Ph.D. committee for Henrik Rene Cederkvist, March 2006, Universitet for Miljø og Biovidenskab(UMB), Ås, Norway..
19. Member of the committee for the description of a Professor position in Chemometrics, The Department of Dairy and Food Science, KVL, Spring 2005.
20. Member of committee for evaluating 10 applicants for Ph.D. grants under the Danish Research School in Biostatistics, January 2005.
21. Member of the Ph.D. committee for Margrethe Hersleth, The Agricultural University of Norway, Ås, March 2005.
22. Member of committee for evaluating six applicants for Ph.D. grants under the Danish Research School in Biostatistics, September 2004.
23. Chairman of the Ph.D. committee for Marianne Dyrby: Multivariate Analysis of High-Field NMR Data in Food and Medicine, Chemometrics Group, Food Technology, The Department of Dairy and Food Science, KVL, March 2004.

24. Member of the Dr. Agric. committee for Hans J. Rosenfeld: Sensory, Chemical and Morphological Changes in Carrots (*Daucus Carota L.*) as influenced by Climatic Factors, The Agricultural University of Norway, Ås, Spring 2003.
25. Member of the Ph.D. committee for Narinder Singh Sahni: Measuring, Monitoring and Optimizing of Food Processes, The Agricultural University of Norway, Ås, October 2002.
26. Chairman of the Ph.D. committee for Claus A. Andersson: Exploratory Multivariate Data Analysis with Applications in Food Technology, Chemometrics Group, Food Technology, The Department of Dairy and Food Science, KVL, August 2000.
27. Member of the Ph.D. committee for Sanjoy Ketan Paul: Assessment of Tea Quality: Some Statistical Analysis. Tezpur University, Tezpur, Assam, India, Spring 2001.
28. Member of the Ph.D. committee for Tobias Dahl: From Sensory Analysis to Mobile Communication Systems, University of Oslo, Department of Informatics , Spring 2002.
29. Member of the committee for the description of a Professor position in Chemometrics, Food Technology, The Department of Dairy and Food Science, KVL, Spring 2001.
30. Chairman of the committee for appointing a Professor in Chemometrics, Food Technology, The Department of Dairy and Food Science, KVL, Autumn 2001.
31. Chairman of the committee for appointing an associate/assistant Professor in Statistics, Department of Mathematics and Physics, KVL, Autumn 2001.

Hosting academic visitors:

1. Dr. Daniel Moerlein, Georg-August-University of Goettingen, Department of Animal Sciences, Germany
2. John Castura, Director, General , Compusense Inc, Canada, October 2011, 1 Day.
3. Professor Tormod Næs, Nofima Food, Ås, Norway: Repeated visits, 2006-2012.
4. Professor Tormod Næs and Rosario Romano, Matforsk, Ås, Norway, 2 days, October 2005.
5. Professor Tormod Næs, Margrethe Herslet and Oliver Tomic, Matforsk, Ås, Norway, 2 days, April 2005.
6. Sandrine Pineau, ETH, Zurich, January 2005, 1 week.
7. Professor Dr. Joachim Kunert, Fachbereich Statistik, Universität Dortmund, 44221 Dortmund, Germany, 1 week, August 2000.
8. Dr. Pascal Schlich, Directeur du LIRIS (UMS CNRS-INRA 1826), Centre Européen des Sciences du Goût (CESG), Laboratoire d'Interface Recherche-Industrie-Service (LIRIS), Campus de l'Université de Dijon - 15, rue Hugues Picardet, 21000 Dijon – France, 1 week, October 1997.
9. Dr. Irina Arhipova, Assistant Professor., Dr.sc.ing., Institute of Informatics, 2 Liela Street, Jelgava, LV3001 Latvia, 2 months, autumn 2000.
10. Ph.D. student Biagio Simonetti, January-March 2002, 3 months.
11. Dr. Michael Meyners, Fachbereich Statistik, Universität Dortmund, 44221 Dortmund, Germany. Rudolf Chaudoire-Award, planned for September-October 2002, 6 weeks.

List of publications for Per Bruun Brockhoff, March 2017. (130 listed items)

Software: (5)

1. Christensen, R. H. B. & **P. B. Brockhoff** (2015). sensR---An R-package for sensory discrimination package version 1.4-5. <https://cran.r-project.org/web/packages/sensR/>
2. Alexandra Kuznetsova, **Per Bruun Brockhoff** and Rune Haubo Bojesen Christensen (2015). lmerTest: Tests for random and fixed effects for linear mixed effect models (lmer objects of lme4 package).. R package version 2.0-29. <https://cran.r-project.org/web/packages/lmerTest/>
3. Alexandra Kuznetsova, **Per Bruun Brockhoff** and Rune Haubo Bojesen Christensen (2014). SensMixed: Mixed effects modelling for sensory and consumer data. R package version 2.0-8. <http://cran.at.r-project.org/web/packages/SensMixed/>
4. PanelCheck, Open source software for sensory profile data, www.panelcheck.com
5. ConsumerCheck, Open source software for sensory and consumer data, <http://consumercheck.co/>

Dissertations: (2)

6. **Brockhoff, P.M.** (1991). *Gibbs Fields and Consistency of a Class of Estimators using Large Deviations*. Masters thesis, Department of Theoretical Statistics, University of Aarhus, Denmark.
7. **Brockhoff, P.M.** (1994). *Statistical Analysis of Sensory Data*. Ph.D. thesis, Dept. of Mathematics and Physics, Royal Veterinary and Agricultural University, Copenhagen, Denmark.

Books: (4)

8. T. Næs, **P.B. Brockhoff** and O. Tomic, (2010). *Statistics for Sensory and Consumer Science*, John Wiley & Sons.
9. J.C.W. Rayner, D.J. Best, **P.B. Brockhoff** and G.D. Rayner.(2005). *Nonparametrics for Sensory Science: A More Informative Approach*, Blackwell Publishing, USA.
10. **Brockhoff, PB**, Møller, JK, Andersen, EW, Bacher, P & Christiansen, LE (2017) Introduction to Statistics - eBook, 400pp. Available from: <https://02402.compute.dtu.dk/enotes/book-IntroStatistics> and lix eBook portal (<https://www.lix.com/en/>).
11. **Brockhoff, PB** (2015) Analysis of correlated Data: Mixed Linear Models - eBook, 400pp. Available from: <http://02429.compute.dtu.dk/enote/>

Refereed journal papers: (89, in reverse chronology 2017 - 1993)

12. Birot, S., Madsen C.B., Kruizinga A.G., Christensen T., Crépet A., **Brockhoff, P.B.** (2017). Grouping food consumption data for use in food allergen risk assessment. *Journal of Food Composition and Analysis, in press*.
13. Kuznetsova, A., **Brockhoff, P. B.**, Christensen, R. H. B. (2017). lmerTest package: Tests in Linear Mixed Effects Models. *Journal of Statistical Software, in press*.
14. **Brockhoff, PB**, Amorim, IDS, Kuznetsova, A, Bech, S & de Lima, RR (2016). Delta-tilde interpretation of standard linear mixed model results. *Food Quality and Preference*, 49, 129-139.
15. Perez Mata M, Ahmed-Kristensen S, **Brockhoff PB**, Yanagisawa H. (2016). Investigating the influence of product perception and geometric features. *Research in Engineering Design*, 1-23.
16. Aaslyng, Margit D. and Broge, Eva Honnens De Lichtenberg and **Brockhoff, Per B.** and Christensen, Rune Haubo B. (2016). The effect of skatole and androstenone on consumer response towards fresh pork from m.

- longissimus thoracis et lumborum and m. semimembranosus. *Meat Science*, 116, 174-185.
17. Mielby, Line H. and Andersen, Barbara Vad and Jensen, Sidsel and Kildegaard, Heidi and Kuznetsova, Alexandra and Eggers, Nina and **Brockhoff, Per B.** and Byrne, Derek V. (2016). Changes in sensory characteristics and their relation with consumers' liking, wanting and sensory satisfaction: Using dietary fibre and lime flavour in Stevia rebaudiana sweetened fruit beverages. *Food Research International*, 82, 14-21.
 18. Haugaard, P, Stancu, CM, **Brockhoff, PB**, Thorsdottir, I & Lähteenmäki, L. (2016). Determinants of meal satisfaction in a workplace environment. *Appetite*, 105, 195-203.
 19. Haugaard, P., **Brockhoff, P. B.**, & Lahteenmaki, L. (2016). Objective measures of meal variety lacking association with consumers' perception of variety with self-selected buffet meals at work. *Food Quality and Preference*, 51, 123-129.
 20. **Brockhoff, P. B.**, Amorim, I. D. S., Kuznetsova, A., Bech, S., & de Lima, R. R. (2016). Delta-tilde interpretation of standard linear mixed model results. *Food Quality and Preference*, 49, 129-139.
 21. Aaslyng, MD, Broge, EHL, **Brockhoff, PB** and Christensen, RH. (2015). The effect of skatole and androstenone on consumer response towards streaky bacon and pork belly roll. *Meat Science*, 110, 52-61.
 22. Welling SH, Clemmensen LKH, Buckley ST, Hovgaard L, **Brockhoff PB**, Refsgaard HHF. (2015). In silico modelling of permeation enhancement potency in Caco-2 monolayers based on molecular descriptors and random forest. *European Journal of Pharmaceutics and Biopharmaceutics*, 94, 152-159.
 23. **Brockhoff, P. B.**, Schlich, P., & Skovgaard, I. (2015). Taking individual scaling differences into account by analyzing profile data with the Mixed Assessor Model. *Food Quality and Preference*, 39, 156-166.
 24. Romano, R., Næs, T. and **Brockhoff, P.B.** (2015). Combining analysis of variance and three-way factor analysis methods for studying additive and multiplicative effects in sensory panel data. *Journal of Chemometrics*. Vol. 29, No. 1, p. 29-37.
 25. Kuznetsova, A., Christensen, R.H.B., Bavay, C. and **Brockhoff, P.B.** (2015). Automated mixed ANOVA modeling of sensory and consumer data. *Food Quality and Preference* 40, 31-38
 26. Biloft-Jensen, A. P., Hjort, M. F., Trolle, E., Christensen, T., **Brockhoff, P. B.**, Andersen, L. F., Tetens, I. Matthiessen, J. (2014). Comparison of estimated energy intake in children using a Web-based Dietary Assessment Software with accelerometer-estimated energy expenditure in children. *Food & Nutrition Research*, 57
 27. Christensen, R. H. B., Ennis, J. M., Ennis, D. M., & **Brockhoff, P. B.** (2014). Paired preference data with a no-preference option – Statistical tests for comparison with placebo data. *Food Quality and Preference*, 32, 48-55.
 28. Peltier, C., **Brockhoff, P. B.**, Visalli, M., & Schlich, P. (2014). The MAM-CAP table: A new tool for monitoring panel performances. *Food Quality and Preference*, 32(Part A), 24-27.
 29. Bavay, C., **Brockhoff, P. B.**, Kuznetsova, A., Maître, I., Mehinagic, E., & Symoneaux, R. (2014). Consideration of sample heterogeneity and in-depth analysis of individual differences in sensory analysis. *Food Quality and Preference*, 32, 126-131.
 30. Rothausen, B. W., Matthiessen, J., Andersen, L. F., **Brockhoff, P. B.**, & Tetens, I. (2013). Dietary patterns on weekdays and weekend days in 4–14-year-old Danish children. *British Journal of Nutrition*, 109(9), 1704-1713.

31. Biloft-Jensen, A., Bysted, A., Trolle, E., Christensen, T., Knuthsen, P., Damsgaard, C.T., Andersen, L.F., **Brockhoff, P.B.** and Tetens, I. (2013). Evaluation of Web-based Dietary Assessment Software for Children: comparing reported fruit, juice and vegetable intakes with plasma carotenoid concentration and school lunch observations. *British Journal of Nutrition*, 110(1), 186–195.
32. Kotwa, E. K., Jørgensen, B. M., **Brockhoff, P. B.**, & Frosch, S. (2013). Automatic scatter detection in fluorescence landscapes by means of spherical principal component analysis. *Journal of Chemometrics*, 27(1-2), 3-11.
33. Cecile Bavay, Ronan Symoneaux, Isabelle Maitre, Alexandra Kuznetsova, **Per Bruun Brockhoff**, Emira Mehinagic (2013). Adaptation of a sensory evaluation methodology for variable products: a study on apples. *Postharvest Biology and Technology*, Vol. 77, 67-74.
34. Christensen, R. H. B., & **Brockhoff, P. B.** (2013). Analysis of sensory ratings data with cumulative link models. *Journal de la Societe Francaise de Statistique & Revue de Statistique Appliquee*, 154(3), 58-79.
35. Christensen, R. H. B., H.-S. Lee and **P. B. Brockhoff** (2012). Estimation of the Thurstonian model for the 2-AC protocol. *Food Quality and Preference*. 24(1), 119-128.
36. Dehlholm, C., **Brockhoff, P.B.** and Bredie, W.L.P.(2012). Confidence ellipses: A variation based on parametric bootstrapping applicable on Multiple Factor Analysis results for rapid graphical evaluation. *Food Quality and Preference*, Vol. 26, No. 2, 2012, p. 278-280.
37. Dehlholm, C., **Brockhoff, P.B.**, Meinert, L., Aaslyng, M.D. and Bredie, W.L.P.(2012). Rapid descriptive sensory methods – Comparison of Free Multiple Sorting, Partial Napping, Napping, Flash Profiling and conventional profiling. *Food Quality and Preference*, Vol. 26, No. 2, 2012, p. 267-277.
38. Rothausen, B.W., Matthiessen, J., Groth, M.V., **Brockhoff, P.B.**, Andersen, L.F. and Trolle, E. (2012). Comparison of estimated energy intake from 2x24-hour recalls and a 7-day food diary with objective measurements of energy expenditure in children, *Food & Nutrition Research*, vol. 56, p. 1-10.
39. Rothausen, B.W., Matthiessen, J., Hoppe, C., Andersen, L.F., **Brockhoff, P.B.** and Tetens, I. (2012). Differences in Danish children's diet quality on weekdays vs. weekend days, *Public Health Nutrition Research*, vol. 25, p. 1-8.
40. Christensen, R.H.B. Cleaver, G. and **Brockhoff, P.B.** (2011). Statistical and Thurstonian models for the A-not A protocol with and without sureness, *Food Quality and Preference*, 22(6), 542-54.
41. Frølich, A. Bellows, J Nielsen, B.F., **Brockhoff, P.B.** and Hefford, M. (2010). Effective population management practices in diabetes care - an observational study. *BMC Health Services Research* 10:277.
42. Jensen, L.R.D., Friis H., Fundal, E., Møller, P., **Brockhoff, P.B.** and Jespersen, M. (2010). Influence of quartz particles on wear in vertical roller mills. Part I: Quartz concentration. *Minerals Engineering*, Vol. 23(5), 390-398
43. **Brockhoff, P.B.** and Christensen, R.H.B. (2010). Thurstonian models for sensory discrimination tests as generalized linear models. *Food Quality and Preference* 21(3), 330-338.
44. Christensen, R.H.B. and **Brockhoff, P.B.** (2009). Estimation and inference in the same-different test. *Food Quality and Preference* 20(7), 514-524.

45. L. Meinert, K. Tikk, M. Tikk, **P. B. Brockhoff**, W.L.P. Bredie, C. Bjerregaard, M. D. Aaslyng (2009), Flavour development in pork. Influence of flavour precursor concentrations in longissimus dorsi from pigs with different raw meat qualities. *Meat Science* 81(1), 255–262.
46. L. Meinert, K. Tikk, **P. B. Brockhoff**, C. Bejerholm, M. D. Aaslyng (2008), Flavour formation in pork semimembranosus: combination of pan-temperature and raw meat quality, *Meat Science* 80(2), 249–258.
47. Romano, R., **Brockhoff, P. B.**, Hersleth, M., Tomic, O., Næs, T. (2008). Correcting for different use of the scale and the need for further analysis of individual differences in sensory analysis, *Food Quality and Preference*, vol. 19, pp. 197-209.
48. Frandsen, L. W., Dijksterhuis, G. B., **Brockhoff, P. B.**, Nielsen, J. H., Martens, M. (2007). Feelings as a basis for discrimination: Comparison of a modified authenticity test with the same-different test for slightly different types of milk, *Food Quality and Preference*, vol. 18(1), pp. 97-105.
49. Jensen, B. F., **Brockhoff, P. B.**, Vind, C., Padkjær, S. B., Refsgaard, H. H. (2007), In Silico Classification of Solubility using Binary k-Nearest Neighbor and Physical-Chemical Descriptors., *QSAR & Combinatorial Science*, vol. 26(4), 452-459.
50. Jensen, B. F., Vind, C., Padkjær, S. B., **Brockhoff, P. B.**, Refsgaard, H. H. (2007). In Silico Prediction of P450 2D6 and 3A4 Inhibition using Gaussian Kernel Weighted k-Nearest Neighbor and Extended Connectivity Fingerprints., *Journal of Medicinal Chemistry*, vol. 50(3), pp. 501-511.
51. Peneau, S., **Brockhoff, P.B.**, Hoehn, E., Escher, F., Nuessli, J. (2007). Relating consumer evaluation of apple freshness to sensory and physico-chemical measurements, *Journal of Sensory Studies*, vol. 22, pp. 315-335.
52. Peneau, S., **Brockhoff, P. B.**, Escher, F., Nuessli, J. (2007). A comprehensive approach to evaluate the freshness of strawberries and carrots, *Postharvest Biology and Technology*, vol. 45, pp. 20-29.
53. Best, D. J., **Brockhoff, P. B.**, Rayner, J. W. (2006), Test for balanced incomplete block ranked data with ties, *Statistica Neerlandica.*, 60(1), 3-11.
54. Hornbæk, T., **Brockhoff, P. B.**, Siegumfeldt, H., Budde, B. B. (2006), Two sub-populations of *Listeria monocytogenes* occur at sub-inhibitory concentrations of leucocins 4010 and nisin., *Applied and Environmental Microbiology*, 72 (2) 1631-1638.
55. Refsgaard, H. H., Jensen, B. F., Christensen, I. T., Hagen, N., **Brockhoff, P. B.** (2006), In Silico Prediction of Cytochrome P450 Inhibitors, *Drug Development Research*, 67, 1-13,
56. Jensen, B.F., Refsgaard, H.H.F., Bro R., **Brockhoff, P.B.** (2005): Classification of Membrane Permeability of Drug Candidates: A methodological investigation. *QSAR & Combinatorial Science*, 24(4), 449-457..
57. Klemp, K., Sander, B., **Brockhoff, P.**, Vaag, A., Lund-Andersen, H., Larsen, M. (2005), The multifocal ERG in diabetic patients without retinopathy during euglycemic clamping, *INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE*, 46(7), 2620-2626.
58. Refsgaard, H.H.F., Jensen, B.F., **Brockhoff, P.B.**, & Christensen, M.S. (2005): In Silico Prediction of Membrane Permeability from Calculated Molecular Parameters. *J. of Medicinal Chemistry*, 48, 805-811.
59. Best, D.J., **Brockhoff, P.B.** and Rayner, J.C.W. (2004). An application of extended analysis for ranked data with ties. *Australian & New Zealand Journal of Statistics*. 46(2), 197-208.
60. **Brockhoff, P.B.**, Best, D.J. and Rayner, J.C.W. (2004). Partitioning Anderson's statistic for tied data. *Journal of Statistical Planning and Inference*, 121, 93-111.

61. Erichsen, L. and **Brockhoff, P.B.** (2004). An application of latent class random coefficient regression. *Journal of Applied Mathematics and Decision Sciences*, 8(4), 201-214.
62. Klemp K., Larsen, M., Sander B., Vaag A., **Brockhoff, P.B.** and Lund-Andersen, H. (2004). Effect of short-term hyperglycemia on multifocal electroretinogram in diabetic patients without retinopathy. *Investigative Ophthalmology & Visual Science* 45(10), 3812-3819
63. Luxhøi, J. and **Brockhoff, P.B.** (2004). Analysis of variance on gross nitrogen mineralization data. *Soil Biology & Biochemistry* 36, 735-736.
64. Varming, C., Jensen, K., Møller, S., **Brockhoff, P.B.**, Christiansen, T., Edelenbos, M., Bjørn, G.K. and Poll, L., (2004). Determination of eating quality of raw carrots and correlations between sensory and instrumental measurements. *Food Quality and Preference* 15, 531-540.
65. Andersen, C.M., Bro, R. and **Brockhoff, P.B.** (2003). Effect of sampling errors on predictions using replicated measurements, *Journal of Chemometrics*. 17, 1-9.
66. **Brockhoff, P.B.**, Best, D.J. and Rayner, J.C.W. (2003). Using Anderson's statistic to compare distributions of consumer preference rankings. *Journal of Sensory Studies* 18, 77-82.
67. **Brockhoff, P.B.** (2003). The statistical power of replications in discrimination tests. *Food Quality and Preference* 14(5-6), 405-417.
68. **Brockhoff, P.B.** (2003). Statistical testing of individual differences in sensory profiling. *Food Quality and Preference* 14(5-6), 425-434.
69. Frandsen LW, Dijksterhuis G, **Brockhoff P**, (2003). Subtle differences in milk: comparison of an analytical and an affective test. *Food Quality and Preference* 14(5-6), 515-526.
70. Jensen, P.N., Sørensen, G., **Brockhoff, P.** and Bertelsen G. (2003). Development of packaging systems for shelled walnuts based on oxygen absorbers. *J. Agric. Food Chem.* 2003, 51 (17), 4941-4947.
71. Martens, H., Hoy, M., Wise, B., Bro, R. and **Brockhoff, P.B.** (2003). Pre-whitening of data by covariance-weighted pre-processing. *Journal of Chemometrics* 17(3), 153-165.
72. Meyners, M. and **Brockhoff, P.B.** (2003). The design of replicated difference tests. *Journal of Sensory Studies*, 18(4), 291-324.
73. Smith A, Cullis B, **Brockhoff P.** and Thompson R. (2003). Multiplicative mixed models for the analysis of sensory evaluation data. *Food Quality and Preference* 14(5-6), 387-395.
74. **Brockhoff, P.B.** (2001). Sensory Profile Average Data: Combining Mixed Model ANOVA with Measurement Error methodology. *Food Quality and Preference* 12(5-7), 413-426.
75. Christensen, P., **Brockhoff P.B.**, Borge, L.V. and Lehn-Jensen, H. (2001). Sædforskning og husdyravl 3. Sædkvalitet og frugtbarhed hos tyre og orner. *Dansk Veterinær Tidsskrift*.
76. Refsgaard, H.H.F., **Brockhoff, P.B.** and Jensen B. (2000). Free polyunsaturated acids cause sensory deterioration of salmon during frozen storage. *J. Agric. Food Chem.* 48(8), 3280-3285.
77. Schlich, P., Dacremont, C. and **Brockhoff, P.M.** (2000). Application of replicated difference testing, *Food Quality and Preference*, 11(1-2), 43-46.
78. Viuff, D., Greve, T., Avery, B., Hyttel, P., **Brockhoff, P.B.** and Thomsen, P.D. (2000). Chromosome aberrations in in vitro produced bovine embryos at Days 2-5 post insemination. *Biology of Reproduction* 63, 1143-1148.
79. Wienberg, L., Martens, M. and **Brockhoff P.B.** (2000). Sensory quality criteria for cold versus warm green peas studied by multivariate data analysis. *J. Food Quality*, 23, 565-581.

80. Kristensen, D., Orlien, V., Mortensen, G., **Brockhoff, P.** and Skibsted, L.H. (2000). Light induced oxidation in sliced havarti cheese packaged in modified atmosphere. *International Dairy Journal* **10**, 95-103.
81. Larsen, F.G., Steinkjer, B., Jacobsen, P., Hjorter, A., **Brockhoff, P.B.** and Nielsen-Kudsk, F. (2000). Acitretin is converted to etretinate only during concomitant alcohol intake. *British Journal of Dermatology* **143**, 1164-1169. (Selected for the 2001 Year Book of Dermatology)
82. **Brockhoff, P.M.** (2000). Fourth Sensometrics Meeting, Copenhagen 6-8 August 1998. *Food Quality and Preference*, **11**(1-2), 3-3.
83. Christensen, P., **Brockhoff P.B.** and Lehn-Jensen, H. (1999). The relationship between semen quality and the nonreturn rate of bulls. *Reprod. Dom. Anim.* . **34**, 503-507.
84. Jensen, K., Petersen, M.A., Poll, L. and **Brockhoff, P.B.** (1999). Influence of variety and growing location on the development of off-flavour in precooked vacuum-packed potatoes. *J. Agric. Food Chem.* **47**(3), 1145-1149.
85. Jacobsen, H.B., Hansen, M., Christensen M.R., **Brockhoff, P.B.** and Olsen, C.E. (1998). Aroma volatiles of blanched green peas (*Pisum sativum* L.). *J. Agric. Food Chem.* **46**(9), 3727-3734.
86. Refsgaard, H.H.F., **Brockhoff, P.B.** and Jensen B. (1998) Biological variation of lipid constituents and distribution of tocopherols and astaxanthin in farmed atlantic salmon (*Salmo salar*). *J. Agric. Food Chem.* **46**(3), 808-812.
87. Refsgaard, H.H.F., **Brockhoff, P.M.B.** and Jensen B. (1998). Sensory and chemical changes in farmed atlantic salmon (*Salmo salar*) during frozen storage. *J. Agric. Food Chem.* **46**(9), 3473-3479.
88. **Brockhoff, P.M.** (1998a). Assessor modelling. *Food Quality and Preference* **9**(3), 87-89.
89. **Brockhoff, P.M.** (1998b) Growth curve modelling. *Food Quality and Preference* **9**(3), 91-93.
90. **Brockhoff, P.B.** (1998c). Discussion Contribution. *Food Quality and Preference* **9**(3), 160-162.
91. **Brockhoff, P.B.** and Schlich, P. (1998) Handling replications in discrimination tests. *Food Quality and Preference* **9**(5), 303-312.
92. Poulsen, C.S., **Brockhoff, P.M.B.** and Erichsen, L. (1997). Heterogeneity in consumer preference data - a combined approach. *Food Quality and Preference* **8**(5/6), 409-417.
93. **Brockhoff, P.M.** and Müller, H.G. (1997). Random effect threshold models for dose-response relations with repeated measurements. *Journal of the Royal Statistical Society, ser. B.* **59**(2), 431-446.
94. **Brockhoff, P.M.**, Hirst, D. and Næs, T. (1996). Analysing individual profiles by three-way factor analysis. In: *Multivariate Analysis of Data in Sensory Science*, 307-342. Ed. T. Næs and E. Risvik, Elsevier Science Publishers, Amsterdam, The Netherlands.
95. Madsen, H.L., Andersen L., Christiansen, L., **Brockhoff, P.** and Bertelsen G. (1996). Antioxidative activity of summer savory (*Satureja hortensis* L.) and rosemary (*Rosmarinus officinalis* L.) in minced, cooked pork meat. *Zeitschrift für Lebensmittel-Untersuchung und -Forschung* **203**, 333-338.
96. Refsgaard, H.H.F., **Brockhoff, P.M.**, Meilgaard, M.C., Laursen, P.F. and Skibsted, L.H. (1996). Light induced sensory and chemical changes in aromatic bitters. *Zeitschrift für Lebensmittel-Untersuchung und -Forschung* **203**, 47-55.
97. Refsgaard, H.H.F., **Brockhoff, P.M.B.** and Jensen B. (1996). Sensory and chemical changes of salmon during frozen storage. Poster and in Proceedings: Weurman Flavour Research Symposium, 4 pp, Reading, UK, 23-26 July.
98. Refsgaard, H.H.F., **Brockhoff, P.M.**, Poll, L., Olsen, C.E., Rasmussen, M. and Skibsted, L.H. (1995) Light-induced sensory and chemical changes in aquavit, *Lebensm.-Wiss. u.-Technol.* **28**, 425-435.

99. **Brockhoff, P.M.** and Skovgaard, I.M. (1994). Modelling individual differences between assessors in sensory evaluations. *Food Quality and Preference* **5**, 215-224.
100. **Brockhoff, P.M.**, Skovgaard, I.M., Poll, L. & Hansen, K. (1993). A comparison of methods for linear prediction of apple flavour from gas chromatographic measurements. *Food Quality and Preference* **4**, 215-222.

In proceedings/abstracts/other: (30)

101. Claus Thorn Ekstrøm, Ernst Hansen og **Per Bruun Brockhoff**, 5/11 2016. Statistik i gymnasiet. *BLOG indlæg*.
102. Claus Thorn Ekstrøm og **Per Bruun Brockhoff**, 24/4 2016. Polemikken om p-værdier. *BLOG indlæg*.
103. Claus Thorn Ekstrøm og **Per Bruun Brockhoff**. Balladen om p-værdier, 11/5 2016. *Synspunkt Aktuel Naturvidenskab*.
104. Ekstrøm, CT, Hansen E, **Brockhoff PB** (2017). Statistik i gymnasiet. *LMFK-Bladet and other places*
105. **Brockhoff PB**, Hansen E, Ekstrøm, CT (2017) Brugen af R2 i gymnasiet. *LMFK-Bladet and other places*.
106. **Brockhoff, PB**, Ekstrøm, CT, and Hansen E. (2017). Lineær Regression: Lidt Mere Tekniske Betragtninger Om R2 Og et Godt Alternativ. *LMFK-Bladet and other places*.
107. Welling SH, Refsgaard HHH, Clemmensen LKH, **Brockhoff PB**. (2016) Forest Floor Visualizations of Random Forests, arXiv preprint arXiv:1605.09196. (25 pages)
108. Perez Mata, M., Ahmed-Kristensen, S., & **Brockhoff, P. B.** (2014). Influence of consumer's background on product perception. In *13th International Design Conference - Design 2014*. (pp. 2125-2134). Design Society.
109. **Brockhoff, P. B.** (2011). Advanced statistical analysis of perceptual audio evaluation data. In *Acta Acustica united with Acustica*. (Vol. Supplement 1, pp. 000620)
110. **Brockhoff, Per B.** (2011) Sensometrics for Food Quality Control. In: Scandinavian Workshop on Imaging Food Quality 2011: Ystad, May 27, 2011 - Proceeding (7-16 p.)
111. **Brockhoff, Per B.** (2011). Taking the classical large audience university lecture online using tablet computer and webconferencing, Facilities, International CDIO Conference. Lyngby, Denmark, 2011
112. **Brockhoff** (2011), Sensometrics. In: International Encyclopedia of Statistical Science, Lovric, Miodrag (Ed.), Springer.
113. Jørgensen, S.B. and **Brockhoff, P.B.** (2009). Check på forbrugerpræferencer, Newsletter: FoodDTU Midt i Ugen, DTU Lyngby.
114. Jørgensen, S.B. and **Brockhoff, P.B.** (2009). Seks institutter i multivariat netværk, Newsletter: FoodDTU Midt i Ugen, DTU Lyngby.
115. **Brockhoff, P.B.** (2009) Øl og Fladskærme - statistik i aktion, Book chapter in: Matematiske Horisonter (ISBN: 978-87-643-0453-4), pages: 174-187, DTU Lyngby.
116. Luciano, G., Tomic, O., **Brockhoff, P.B.** Nilsen A. and Tormod Næs (2008). Monitoring of sensory panel performance by use of the PanelCheck. Proceedings of 10th European Symposium on Statistical Methods for the Food Industry, pp. 169-175, Louvain-La-Neuve, Belgium.

117. **Brockhoff, P.B.** and Sommer, N.A. (2008). Accounting for scaling differences in sensory profile data. Proceedings of 10th European Symposium on Statistical Methods for the Food Industry, pp. 283-290, Louvain-La-Neuve, Belgium.
118. Madsen, C., **Brockhoff, P.**, Fagt, S., Norhede, P., Ballmer-Weber, B. (2007), Risk assessment in food allergy: Benchmark dose and margin of exposure, *ALLERGY*, vol. 62, 106-106.
119. Jørgensen, S.B. and **Brockhoff, P.B.** (2007). Check på lyd, lugt og smag , Newsletter: FoodDTU Midt i Ugen, DTU Lyngby.
120. **Brockhoff, P. B.** (2006), Analysis of salmon data by analysis of variance and preference mapping type analysis. *Food Quality and Preference*, vol. 17(7-8), 666-669.
121. Bro, R., **Brockhoff, P. B.**, Skov, T. (2006), *Challenges for Data Analysis in Flavour Science*, Proceedings of the 11th Weurman Flavour Science Symposium 21-24 June 2005, Roskilde.,
122. **Brockhoff, P. B.**, Næs, T., Qannari, M. (2005), *Editorship*, Journal of Chemometrics, vol. 19(3), pp. 121.
123. **Brockhoff, P.B.**, Best, D.J. and Rayner, J.C.W. (2004). Extended analysis for ranked data with ties. In: *Current Research in Modelling, Data Mining and Quantitative Techniques*, 193-201.
124. Bro, R., **Brockhoff, P. B.**, Skov, T. (2006) *Challenges for Data Analysis in Flavour Science*, Proceedings of the 11th Weurman Flavour Science Symposium 21-24 June 2005, Roskilde.
125. **Brockhoff, P.M.** (1995). Generalized linear models in sensometrics, In Proceedings: 4th Conference on Food Industry and Statistics, p. 33-47, December 7-8, Dijon, France.
126. **Brockhoff, P.M.B.** (1997). Sensometri integrerer sensorik og statistik *Plus Proces*, **11**(6), 8-10.
127. **Brockhoff, P.B.** (1998). Analysis of "the same data set". In Report Series from EU project AIR-CAT: "Measurement of consumer attitudes and their influence on food choice and acceptability. *Workshop: Statistical modelling of consumer data*, Vol. 4, No 2, p. 31-33.
128. **Brockhoff, P.B.** (1999). Can multiway methods become successful for analysing sensory profile data? Invited discussion contribution. In Proceedings: 52nd Session of the International Statistical Institute, Helsinki, Finland, Tome LVIII, Book 3, 99-100.
129. **Brockhoff, P.B.** and Meyners, M. (2003). Repeated binomial data in sensometrics: Models, Power and variability. In *proceedings: Symposium i anvendt statistik, 27.-28. January, p. 307-318.*
130. **Brockhoff, P.B.** and Svarre, M. (1998). Sensometri. *Alimenta*, **21**(8), 19-21.