Overcoming trends in irregularly spaced locations by regional polish - exemplified by estimation of the range of influence between Salmonella Dublin-seropositive cattle herds

The aim of the study was to develop a procedure to remove spatial trends in irregularly spaced data, with trends partly due to regional differences. Median polish is often used on regularly spaced (lattice) data where column and row medians are removed. For irregularly spaced data a low-resolution map of the spatial locations is often used where data locations are assigned to the nearest lattice node followed by median polish. In this study regional polish was developed. The inverse distance weighted median was calculated based on observations from locations in the neighbourhood of the actual observation. The regional polish residual is obtained as the difference between the observed value and the weighted median. The regional polish procedure was applied to Salmonella Dublin data showing strong regional trends. Estimation of the range of influence between cattle herds with positive S. Dublin herd status was considerably improved with a stable parameter estimate and reduced standard error.
Spatial modelling of the between-herd infection dynamics of bovine virus diarrhoea virus (BVDV) in dairy herds in Denmark

According to the current literature BVDV-infected neighbours probably impose a high risk of infection of susceptible cattle herds. In the present study, the objective was to evaluate the risk of a dairy herd changing infection status (from not having persistently infected (PI) animals to having PI-animals) in relation to location and infection status of neighbouring cattle herds in Denmark. In total, 7921 dairy herds were included in the analysis of spatial and non-spatial risk factors. The spatial risk factors were derived based on the cattle herds in the neighbourhood (N = 36,639 cattle herds). The neighbourhood was defined as the first order neighbouring cattle herds using a Delauney triangularization. In total, 13.3% of the dairy herds changed herd status to PI-herds during the study period that lasted from January 1, 1995, to June 30, 1996. The risk of becoming a PI-herd was negatively associated with the mean distance to the neighbouring herds (OR = 0.7 for an increase of 1 km). Presence of PI-herds in the neighbourhood increased the risk of becoming a PI-herd (OR = 1.37, 1.40, 1.70 for 1, 2, ≥3 PI-herds in the neighbourhood). Increasing herd size increased the risk of becoming a PI-herd (OR = 3.9 for an increase of 10 cows). Regional differences were seen.

General information
State: Published
Organisations: Department of Informatics and Mathematical Modeling, DTU Data Analysis, Danish Meat Association, University of Copenhagen, Danish Cattle Federation
Authors: Ersbøll, A. K. (Intern), Ersbøll, B. K. (Intern), Houe, H. (Ekstern), Alban, L. (Ekstern), Kjeldsen, A. M. (Ekstern)
Pages: 83-89
Publication date: 2010
Main Research Area: Technical/natural sciences
Journal: Preventive Veterinary Medicine
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Web of Science (2017): Indexed yes
BFI (2016): BFI-level 2
Scopus rating (2016): CiteScore 2.2 SJR 1.185 SNIP 1.329
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 1.26 SNIP 1.23 CiteScore 2.1
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 1.267 SNIP 1.421 CiteScore 2.37
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 1.247 SNIP 1.552 CiteScore 2.49
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 1.274 SNIP 1.452 CiteScore 2.45
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 1.211 SNIP 1.303 CiteScore 2.24
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 1.155 SNIP 1.28
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 1.022 SNIP 1.34
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 1.066 SNIP 1.273
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 1.006 SNIP 1.36
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 1.056 SNIP 1.305
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 0.926 SNIP 1.438
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 0.807 SNIP 1.147
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 0.865 SNIP 1.346
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 0.924 SNIP 1.423
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.044 SNIP 1.415
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 0.945 SNIP 1.272
Web of Science (2000): Indexed yes
Simulation of the K-function in the analysis of spatial clustering for non-randomly distributed locations—Exemplified by bovine virus diarrhoea virus (BVDV) infection in Denmark

The K-function is often used to detect spatial clustering in spatial point processes, e.g. clustering of infected herds. Clustering is identified by testing the observed K-function for complete spatial randomness modelled, e.g. by a homogeneous Poisson process. The approach provides information about spatial clustering as well as the scale of distances of clustering. However, there are several problems related to applying the K-function, e.g. estimation of the size of the study area and the assumption about modelling spatial random distribution of the events by, e.g. a homogeneous Poisson process. The objective of the present study was to develop a null hypothesis version of the K-function that overcomes the assumption about a specific underlying spatial distribution characterising complete spatial randomness. Furthermore, the objective was to develop an approach that does not include the estimation of the size of the study area. The paper presents a simulation procedure to derive the null hypothesis version of the K-function. The null hypothesis version of the K-function is simulated by random sampling of N+ locations from the distribution of N observed locations (infected (N+) and non-infected (N-N+)). The differences between the empirical and the estimated null-hypothesis version of the K-function are plotted together with the 95% simulation envelopes versus the distance, h. In this way we test if the spatial distribution of the infected herds differs from the spatial distribution of the herd locations in general. The approach also overcomes edge effects and problems with complex shapes of the study region. An application to bovine virus diarrhoea virus (BVDV) infection in Denmark is described.

General information
State: Published
Organisations: Department of Informatics and Mathematical Modeling, Image Analysis and Computer Graphics
Authors: Ersbøll, A. K. (Intern), Ersbøll, B. K. (Intern)
Pages: 64-71
Publication date: 2009
Main Research Area: Technical/natural sciences

Publication information
Journal: Preventive Veterinary Medicine
Volume: 91
Issue number: 1
ISSN (Print): 0167-5877
Ratings:
BFI (2018): BFI-level 2
BFI (2017): BFI-level 2
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 2
Scopus rating (2016): CiteScore 2.2 SJR 1.185 SNIP 1.329
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 1.26 SNIP 1.23 CiteScore 2.1
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 1.267 SNIP 1.421 CiteScore 2.37
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 1.247 SNIP 1.552 CiteScore 2.49
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 1.274 SNIP 1.452 CiteScore 2.45
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
Temporal trend in antimicrobial requiring gastrointestinal diseases in Danish finisher herds, 2002-07

General information
State: Published
Organisations: National Veterinary Institute, Department of Informatics and Mathematical Modeling, Division of Microbiology and Risk Assessment, National Food Institute
Publication date: 2009
Event: Poster session presented at The Society for Veterinary Epidemiology and Preventive Medicine (SVEPM),
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 249098
Publication: Research - peer-review › Conference article – Annual report year: 2009

Space-time clustering of non-human antimicrobial resistance in Denmark.: The case of Escherichia coli 1997-2005

General information
State: Published
Organisations: Department of Informatics and Mathematical Modeling, National Food Institute, Division of Microbiology and Risk Assessment
Day-to-day variation in iron-status measures in young iron-deplete women

In intervention and observational studies, it is necessary to determine the number of blood samples required to estimate the true value of Fe-status measures. The aim of the present study was to determine the number of days for blood sampling required in order to measure the 'true value' of five Fe-status parameters in young Fe-depleted women and to investigate the effect of menstrual cycle on these measures. Twelve women (aged 23-30 years), non-anaemic but with low Fe stores, participated in the study. Venous blood samples were collected under standardised conditions on fifteen non-consecutive days during a 5-week period. All blood samples were analysed for Hb, serum ferritin (SF), serum transferrin receptors (sTfR), red blood cell volume distribution width (RDW) and reticulocytes (RET), and body Fe stores were calculated as the ratio between sTfR and SF. No systematic changes were found in the investigated parameters during the study. When analytical variations were accounted for, the day-to-day variations (CV%) were as follows: Hb 2.9 %, SF 8.2 %, RET 26.0 %, RDW 2.4 % and sTfR 8.1 %.

Calculating the 'true value' with a 5 % significance level and 80 % power showed that one blood sample was sufficient for Hb, SF, sTfR and RDW, whereas seven blood-sampling days were needed for RET. In this study, no significant differences in Fe status were found across the menstrual cycle. The conclusions from this study are valid for studies conducted under similar strict conditions.
Antibacterial drug use for treatment of mastitis in Danish dairy cows

General information
State: Published
Organisations: Image Analysis and Computer Graphics, Department of Informatics and Mathematical Modeling
Authors: Ersbøll, B. K. (Intern), Bruun, J. (Ekstern), Madsen, J. F. (Ekstern), Ersbøll, A. K. (Intern)
Decay of acquired colostral antibodies to Actinobacillus pleuropneumoniae in pigs

The main objective of this study was to estimate the decay of acquired colostral antibodies to Actinobacillus pleuropneumoniae serotype 2 in pigs. Data were obtained from pigs in an isolated cohort of 47 pigs born to five sows seropositive to A. pleuropneumoniae serotype 2. The pigs were examined serologically at 18 different times from birth until an age of about 22 weeks, using an A. pleuropneumoniae serotype 2-specific blocking enzyme-linked immunosorbent assay. Antibody concentration was expressed as an OD% derived from the optical density of the sample and the median from eight wells without serum on the same plate. A non-linear mixed model assuming a constant rate of decay (half-life) was specified and fitted to the serological data. To estimate the between-pig variability of different components, between-pig random effects of each component of the model were estimated. The estimated average half-life of acquired colostral antibodies was approximately 2 weeks, but there was a considerable variation between pigs (half-life ranged from 1-3 weeks). The duration until acquired colostral antibodies were no longer detectable ranged from 2 weeks to 2 months postpartum among the pigs in the study, mainly depending on the initial level of acquired colostral antibodies to A. pleuropneumoniae serotype 2.

Epidemiological Studies Based on Small Sample Sizes – A Statistician's Point of View

Epidemiological Studies Based on Small Sample Sizes – A Statistician's Point of View

General information
State: Published
Organisations: Image Analysis and Computer Graphics, Department of Informatics and Mathematical Modeling
Authors: Erbsøll, A. K. (Intern), Erbsøll, B. K. (Intern)
Pages: S127-S140
Publication date: 2003
Quality and Analysis of Small Data Sets – A Statistical Point of View

General information
State: Published
Organisations: Image Analysis and Computer Graphics, Department of Informatics and Mathematical Modeling
Authors: Ersbøll, A. K. (Intern), Ersbøll, B. K. (Intern)
Pages: P44
Publication date: 2003
Conference: International Conference on Production Diseases in Farm Animals, Copenhagen, 01/01/2003
Main Research Area: Technical/natural sciences

Publication information
Journal: Acta Veterinaria Scandinavica. Supplementum
Volume: 44
Issue number: Suppl. 1
ISSN (Print): 0065-1699
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Scopus rating (2016): CiteScore 1.01
Scopus rating (2015): CiteScore 0.98
Scopus rating (2014): CiteScore 1.54
Scopus rating (2013): CiteScore 1.41
Scopus rating (2012): CiteScore 1.26
Web of Science (2012): Indexed yes
Scopus rating (2011): CiteScore 1.42
Web of Science (2011): Indexed yes
Web of Science (2010): Indexed yes
Web of Science (2009): Indexed yes
Web of Science (2008): Indexed yes
Web of Science (2007): Indexed yes
Web of Science (2006): Indexed yes
Web of Science (2005): Indexed yes
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10.1186/1751-0147-44-S1-S127
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Source-ID: 58435
Publication: Research - peer-review › Journal article – Annual report year: 2003
Risk factors associated with interdog aggression and shooting phobias among purebred dogs in Denmark

The prevalence of behaviour problems is reported from a questionnaire study among members of the Danish Kennel Club (DKC). In total, 4359 dog owners were included in the analyses. With logistic regression, we analysed four behaviour problems: dominance towards the owner, interdog dominance aggression, separation anxiety and shooting phobia. Compared to Labrador Retrievers, the following breeds and breed groups had higher odds of being reported to have interdog dominance aggression: Belgian Shepherds, Dachshunds, Dalmatians, German Shepherds, Hovawarts, Pinschers, Rottweilers, Scent dogs and Spitz dogs. Poodles, retrieving/flushing dogs, Sheepdogs, Spitz dogs and terriers had higher odds of shooting phobia. The odds of interdog dominance aggression were higher among dogs owned by younger dog owners compared to dogs owned by older dog owners. Dogs living in the capital area of Copenhagen had increased odds of interdog dominance aggression as compared to dogs living in other parts of Denmark. Dogs belonging to owners with limited knowledge of the breed before acquiring the dog had higher odds of interdog dominance aggression. Dogs attending obedience training classes had reduced odds of shooting phobia. Dogs belonging to dog breeders had reduced odds of being reported to have the investigated behaviour problems.

General information
State: Published
Organisations: Department of Informatics and Mathematical Modeling
Authors: Rugbjerg, H. (Ekstern), Proschowsky, H. F. (Ekstern), Ersbøll, A. K. (Intern), Lund, J. D. (Ekstern)
Pages: 85-100
Publication date: 2003
Main Research Area: Technical/natural sciences

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Volume: 58
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BFI (2018): BFI-level 2
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Web of Science (2017): Indexed yes
BFI (2016): BFI-level 2
Scopus rating (2016): CiteScore 2.2 SJR 1.185 SNIP 1.329
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 1.26 SNIP 1.23 CiteScore 2.1
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 1.267 SNIP 1.421 CiteScore 2.37
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
The objective of the present study was to investigate risk factors associated with the introduction of acute clinical infectious bursal disease (IBD) among Danish broiler chickens in 1998. Data on 218 flocks were collected from hatcheries, abattoirs, farmers and veterinarians; 49 of the flocks had experienced acute clinical IBD (cases), 169 were unexposed (controls). The study was carried out using a case-control design. Cases were defined as the first flock on each premises to experience acute clinical IBD, and these were compared with non-diseased, non-IBD-vaccinated control flocks chosen randomly from each unaffected farm. The resulting numbers of cases and controls used for statistical analyses were 16 and 61, respectively. Statistically significant associations were seen between the initial 16 Danish cases of acute clinical IBD in 1998 and certain hatcheries, age of parent birds and a certain feed mill.

Risk factors associated with the introduction of acute clinical infectious bursal disease among Danish broiler chickens in 1998

The objective of the present study was to investigate risk factors associated with the introduction of acute clinical infectious bursal disease (IBD) among Danish broiler chickens in 1998. Data on 218 flocks were collected from hatcheries, abattoirs, farmers and veterinarians; 49 of the flocks had experienced acute clinical IBD (cases), 169 were unexposed (controls). The study was carried out using a case-control design. Cases were defined as the first flock on each premises to experience acute clinical IBD, and these were compared with non-diseased, non-IBD-vaccinated control flocks chosen randomly from each unaffected farm. The resulting numbers of cases and controls used for statistical analyses were 16 and 61, respectively. Statistically significant associations were seen between the initial 16 Danish cases of acute clinical IBD in 1998 and certain hatcheries, age of parent birds and a certain feed mill.

General information
State: Published
Weed Mapping with Co-Kriging Using Soil Properties

Our aim is to build reliable weed maps to control weeds in patches. Weed sampling is time consuming but there are some shortcuts. If an intensively sampled variable (e.g. soil property) can be used to improve estimation of a sparsely sampled variable (e.g. weed distribution), one can reduce weed sampling. The geostatistical estimation method co-kriging uses two or more sampled variables, which are correlated, to improve the estimation of one of the variables at locations where it was not sampled. We did an experiment on a 2.1 ha winter wheat field to compare co-kriging using soil properties, with kriging based only on one variable. The results showed that co-kriging Lamium spp. from 96 0.25m² sample plots ha⁻¹ with silt content improved the prediction variance by 11% compared to kriging. With 51 or 18 sample plots ha⁻¹ the prediction variance was improved by 21 and 15%.

General information
State: Published
Organisations: Department of Informatics and Mathematical Modeling, Danish Institute of Agricultural Sciences, Royal Veterinary and Agricultural University
Authors: Heisel, T. (Ekstern), Ersbøll, A. K. (Intern), Andreasen, C. (Ekstern)
Pages: 39-52
Publication date: 1999
Main Research Area: Technical/natural sciences

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Journal: Precision Agriculture
Volume: 1
Issue number: 1
ISSN (Print): 1385-2256
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BFI (2016): BFI-level 1
Scopus rating (2016): SJR 0.689 SNIP 1.512 CiteScore 2.13
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.781 SNIP 1.5 CiteScore 2.68
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.918 SNIP 1.483 CiteScore 2.22
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 1.032 SNIP 1.753 CiteScore 2.51
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.968 SNIP 1.5 CiteScore 1.92
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 0.794 SNIP 1.555 CiteScore 1.88
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.681 SNIP 1.127
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.791 SNIP 1.236
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.522 SNIP 1.058
Scopus rating (2007): SJR 0.452 SNIP 0.616
Scopus rating (2006): SJR 0.496 SNIP 0.673
Scopus rating (2005): SJR 0.554 SNIP 1.215
Scopus rating (2004): SJR 0.804 SNIP 1.311
Scopus rating (2003): SJR 0.785 SNIP 1.061
On Spatio-temporal Kriging

General information
State: Published
Organisations: Department of Informatics and Mathematical Modeling, Image Analysis and Computer Graphics
Authors: Ersbøll, A. K. (Intern), Ersbøll, B. K. (Intern)
Pages: 617-622
Publication date: 1997

Host publication information
Title of host publication: Proceedings of the Third Annual Conference of the International Ass. for math. Geology. Vera Pawlowsky Glahn (ed.)
Place of publication: Barcelona, Spain
Publisher: CIMNE
Main Research Area: Technical/natural sciences
Conference: Third Annual Conference of the International Ass. for Math. Geology, Barcelona, 01/01/1997
Source: orbit
Source-ID: 168674
Publication: Research - peer-review › Article in proceedings – Annual report year: 1997

On the spatial and temporal correlations in experimentation with agricultural applications

The present thesis describes design and analysis of agricultural experiments utilizing the spatial and temporal correlation between the measurements. The thesis is organized in three parts, spatial experimental design in Part 1, analysis of temporally correlated measurements in Part 2 and a brief introduction to spatio-temporal models in part 3. Classical statistical analysis normally assumes independent observations. Therefore, knowledge concerning the spatial and temporal relation between plots and between measurements are not included in this kind of analysis. However, agricultural experiments often contain spatial correlations due to a spatial layout and/or temporal correlation due to repeated sampling of measurements at the same experimental unit. A method for design of field experiments is proposed in Part 1. The residual variance between plots in different layouts is used to compare different layouts. The optimal design and layout from a statistical point of view is the one with the smallest residual variance. The residual variance between plots consists of an error term which depends on the plot size (the dispersion variance) and an error term independent of the plot size (assumed to be the nugget variance). The two error terms are estimated using a semivariogram describing the variation between plots as a function of the distance between them. The method for calculation of the residual variance is based on a uniformity trial. Unfortunately, uniformity trials are seldomly performed. Therefore, an approach for estimating and removing treatment effects in ordinary field experiments is described. The treatment eliminated residuals obtained in this way can then be used as the base for calculating the residual variance. An example based on a uniformity trial showed a remarkable reduction of the residual variance by choosing among different possible layouts. In Part 2 different methods are described for the analysis of temporally correlated measurements in field trials. When the assumption of sphericity is satisfied the univariate analysis of variance is a valid, easy and comprehensive method to use. However, the assumption is seldomly satisfied for repeated measurements due to the temporal correlation between the measurements at the same experimental unit. Alternative methods have to be used in this case to obtain a valid analysis. A modified univariate analysis of variance with adjusted F-tests is a simple alternative to the usual univariate analysis of variance. Different multivariate analyses are given both with and without a structured variance-covariance matrix. Ante-dependence and autoregressive variance-covariance structures have been tried. The analysis with a structured variance-covariance matrix is in some sense a compromise between the univariate and multivariate analyses. The latter methods with a structured variance-covariance matrix often bring forth a very informative analysis with few restrictions and reasonable results. An analysis with a structured variance-covariance matrix using an ante-dependence structure is to be preferred to an autoregressive structure because the ante-dependence structure gives a model which can take the different variations and correlations into account at the cost of only a few extra parameters. The conclusion of the thesis is that design and analysis of agricultural experiments can be improved by utilization of the spatial and/or temporal correlation between measurements.

General information
State: Published
Projects:

**Modelling allergenic risk**

Department of Applied Mathematics and Computer Science  
Period: 01/09/2013 → 18/01/2017  
Number of participants: 8  
Phd Student: Birot, Sophie (Intern)  
Supervisor: Christensen, Tue (Intern)  
Madsen, Charlotte Bernhard (Intern)  
Main Supervisor: Brockhoff, Per B. (Intern)  
Examiner: Rootzén, Helle (Intern)  
Ersbøll, Annette Kjær (Intern)  
Ersbøll, Annette Kjær (Intern)  
Godefroy, Samuel (Ekstern)

**Financing sources**

Source: Internal funding (public)  
Name of research programme: Anden EU-finansiering

**Relations**

Publications:  
Modelling allergenic risk  
Project: PhD

**Nonlinear Stochastic Modelling of Antimicrobial resistance in Bacterial Populations**

Department of Informatics and Mathematical Modeling  
Period: 01/10/2006 → 30/06/2010  
Number of participants: 6  
Phd Student: Philipsen, Kirsten Riber (Intern)  
Supervisor: Christiansen, Lasse Engbo (Intern)  
Main Supervisor: Madsen, Henrik (Intern)  
Examiner: Molin, Søren (Intern)  
Diekmann, Odo (Ekstern)  
Ersbøll, Annette Kjær (Intern)

**Financing sources**

Source: Internal funding (public)  
Name of research programme: Forskningsrådsfinansiering
BioSonar (EU project MA53-CT95-0026)
Monitoring of typical benthic communities and quantification of their living conditions is an important tool for establishing and maintaining knowledge about marine environments. The health of benthic communities is closely influenced by environmental impacts due to human activities in coastal areas, and many benthic communities have central roles in their ecosystems. In Northern Europe this applies to e.g. common mussels (Mytilus edulis) and in the Mediterranean to e.g. neptune grass (Posidonia oceanica). The neptune grass medows and the common mussel beds play vital roles in favouring biological diversity in the marine ecosystems. Benthic communities are good environmental impact indicators as they respond in well-understood ways, and are important for the sustainability of their ecosystems. The priorities for protection of the environment are strengthened in these years, and the demands for information at higher resolution scales are continually rising. Thus, it is vital to develop methods and technology dedicated to deliver high resolution information on the health of the environment, in particular the difficult observable conditions at sea. The overall aim of the BIOSONAR project is to contribute to the development of technologies and methodologies for use of acoustic equipment in monitoring of biological communities at the sea floor. The project is considered a step towards a larger goal comprising development of equipment and data processing algorithms dedicated to produce sonar pictures of larger sea bottom areas on a level equivalent to current earth observation technology. The expected results of the project will be a validated methodology for estimation of distribution of benthic communities based on sonar monitoring.

Department of Informatics and Mathematical Modeling
Period: 01/02/1996 → 31/01/1999
Number of participants: 7
Project participant:
Sørensen, Per S. (Intern)
Ersbøll, Bjarne Kjær (Intern)
Ersbøll, Annette Kjær (Intern)
Nielsen, Allan Aasbjerg (Intern)
Hilger, Klaus Baggesen (Intern)
Schultz, Nette (Intern)
Project Manager, organisational:
Conradsen, Knut (Intern)

Financing sources
Source: Unknown
Name of research programme: Ukendt
Amount: 402,425.00 Danish Kroner

Udvikling og optimering af kemiske processer under anvendelse af statistiske korrelationsmetoder

Department of Informatics and Mathematical Modeling
Period: 01/09/1987 → 25/04/1995
Number of participants: 2
PhD Student:
Ersbøll, Annette Kjær (Intern)
Main Supervisor:
Spliid, Henrik (Intern)

Financing sources
Source: Internal funding (public)
Name of research programme: Gammel ordning u/skema-SU
Project: PhD

Activities:

Evaluation of factors affecting the analytical sensitivity of bacteriological methods for investigation of S. Dublin in bovine faecal samples
Period: 10 May 2006 → 12 May 2006
Annette Kjær Ersbøll (Speaker)
Department of Informatics and Mathematical Modeling
Description
Place: The I3S International Symposium Salmonella and Salmonellosis, Saint-Malo, France

Related external organisation

Unknown external organisation
Activity: Talks and presentations › Conference presentations