Allan Aasbjerg Nielsen - DTU Orbit (23/12/2017)

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Department of Applied Mathematics and Computer Science - Associate Professor
Image Analysis & Computer Graphics

Publications:

 Canonical analysis of sentinel-1 radar and sentinel-2 optical data
 Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

 Change detection in a series of Sentinel-1 SAR data
 Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

 Change detection in multi-temporal dual polarization Sentinel-1 data
 Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

 Convolutional Neural Networks - Generalizability and Interpretations
 Publication: Research › Ph.D. thesis – Annual report year: 2017

 Corrections to "Change Detection in Full and Dual Polarization, Single- and Multi-Frequency SAR Data"
 Publication: Research - peer-review › Comment/debate – Annual report year: 2017

 Improving SAR Automatic Target Recognition Models with Transfer Learning from Simulated Data
 Publication: Research - peer-review › Journal article – Annual report year: 2017

 Maximum auto-mutual-information factor analysis
 Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

 Site Monitoring with Synthetic Aperture Radar Satellite Imagery
 Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

 Spatial noise-aware temperature retrieval from infrared sounder data
 Publication: Research - peer-review › Article in proceedings – Annual report year: 2017
Visualization of and Software for Omnibus Test Based Change Detected in a Time Series of Polarimetric SAR Data
Publication: Research - peer-review › Journal article – Annual report year: 2017

An omnibus likelihood test statistic and its factorization for change detection in time series of polarimetric SAR data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Change detection in a short time sequence of polarimetric C-band SAR data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Change detection in a time series of polarimetric SAR data by an omnibus test statistic and its factorization
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Determining the Points of Change in Time Series of Polarimetric SAR Data
Publication: Research - peer-review › Journal article – Annual report year: 2016

Identification of Dynamic Cover Types in Wetlands by using Multitemporal Cross-polarized Sentinel-1 Images
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Omnibus test for change detection in a time sequence of polarimetric SAR data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Short-Term Change Detection in Wetlands Using Sentinel-1 Time Series
Publication: Research - peer-review › Journal article – Annual report year: 2016

Stable reconstruction of Arctic sea level for the 1950-2010 period
Publication: Research - peer-review › Journal article – Annual report year: 2016

60-year Nordic and arctic sea level reconstruction based on a reprocessed two decade altimetric sea level record and tide gauges
Publication: Research - peer-review › Poster – Annual report year: 2015

Arctic Sea Level Change over the altimetry era and reconstructed over the last 60 years
Publication: Research - peer-review › Poster – Annual report year: 2015
Arctic Sea Level Reconstruction
Publication: Research › Ph.D. thesis – Annual report year: 2016

Building damage assessment after the earthquake in Haiti using two postevent satellite stereo imagery and DSMs
Publication: Research - peer-review › Journal article – Annual report year: 2015

Canonical analysis based on mutual information
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Canonical Information Analysis
Publication: Research - peer-review › Journal article – Annual report year: 2014

Change detection in a time series of polarimetric SAR images
Skriver, H., Nielsen, A. A. & Conradsen, K. 2015
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Change detection in bi-temporal data by canonical information analysis
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Change Detection in Full and Dual Polarization, Single- and Multifrequency SAR Data
Publication: Research - peer-review › Journal article – Annual report year: 2015

Change detection in polarimetric SAR images using complex Wishart distributed matrices
Conradsen, K., Nielsen, A. A. & Skriver, H. 2015
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Change detection in quad and dual pol, single- and bi-frequency SAR data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Interpretation of images from intensity, texture and geometry
Publication: Research › Ph.D. thesis – Annual report year: 2015

Kernel versions of some orthogonal transformations
Nielsen, A. A. 2015
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Optimal Iterated Two-Class Separation in Hyperspectral Data
Nielsen, A. A. & Müller, A. 2015
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2015
Simulation of GNSS reflected signals and estimation of position accuracy in GNSS-challenged environment
Publication: Research - peer-review › Journal article – Annual report year: 2015

Statistical selection of tide gauges for Arctic sea-level reconstruction
Publication: Research - peer-review › Journal article – Annual report year: 2015

Arctic sea-level reconstruction analysis using recent satellite altimetry
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2014

A spatial-spectral approach for deriving high signal quality eigenvectors for remote sensing image transformations
Publication: Research - peer-review › Journal article – Annual report year: 2014

Change detection in a time series of polarimetric SAR data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Change detection in polarimetric SAR data over several time points
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Confidence and sensitivity of sea-level reconstructions
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2014

Improving Change Detection in Forest Areas Based on Stereo Panchromatic Imagery Using Kernel MNF
Publication: Research - peer-review › Journal article – Annual report year: 2014

Influence analysis of Arctic tide gauges using leverages
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2014

Influence analysis of Arctic tide gauges using leverages

Acceleration of the Greenland ice sheet mass loss as observed by GRACE: Confidence and sensitivity
Publication: Research - peer-review › Journal article – Annual report year: 2013

A kernel version of multivariate alteration detection
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Analysis of sea-level reconstruction techniques for the Arctic Ocean
Svendsen, P. L., Andersen, O. B. & Nielsen, A. A. 2013 Publication: Research - peer-review › Poster – Annual report year: 2014
Automated invariant alignment to improve canonical variates in image fusion of satellite and weather radar data
Vestergaard, J. S. & Nielsen, A. A. 2013 In : Journal of Applied Meteorology and Climatology. 52, p. 701-709
Publication: Research - peer-review › Journal article – Annual report year: 2012

Building damage assessment after the earthquake in Haiti using two post-event satellite stereo imagery and DSMs
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Interpolation in laser scanned height data
Publication: Commissioned › Report – Annual report year: 2013

Kernel based orthogonalization for change detection in hyperspectral images
Nielsen, A. A. 2013
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2013

Some safe and sensible shortcuts for efficiently upscaled updates of existing elevation models
Knudsen, T. & Nielsen, A. A. 2013 In : Geophysical Research Abstracts. 15, 1 p., 13053
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2013

Using leverages for objective analysis of PSMSL tide gauges in Arctic Ocean sea level reconstruction
Svendsen, P. L., Andersen, O. B. & Nielsen, A. A. 2013
Publication: Research - peer-review › Poster – Annual report year: 2013

Acceleration of the GrIS mass loss as observed by GRACE
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2012

Change detection in full and dual polarization sar data and the complex wishart distribution
Publication: Research - peer-review › Paper – Annual report year: 2012

Classification of Polarimetric SAR Data Using Dictionary Learning
Publication: Research - peer-review › Conference article – Annual report year: 2012

Exploring methods for combining altimetry with other data to extend the 20-year altimetric record onto a 50 year timescale
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2012

Linear and kernel methods for multivariate change detection
Canty, M. J. & Nielsen, A. A. 2012 In : Computers & Geosciences. 38, 1, p. 107-114
Publication: Research - peer-review › Journal article – Annual report year: 2012

Monitoring the change in colour of meat: A comparison of traditional and kernel-based orthogonal transformations
Christiansen, A. N., Carstensen, J. M., Møller, F. & Nielsen, A. A. 2012 In : Journal of Spectral Imaging. 3, 1
Publication: Research - peer-review › Journal article – Annual report year: 2012

Optimal Class Separation in Hyperspectral Image Data: Iterated Canonical Discriminant Analysis
Nielsen, A. A. & Müller, A. 2012
Publication: Research - peer-review › Paper – Annual report year: 2012
Parameter optimization in the regularized kernel minimum noise fraction transformation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Sea level reconstruction: Exploration of methods for combining altimetry with other data to beyond the 20-year altimetric record
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2012

Sea level reconstruction from satellite altimetry and tide gauge data
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2012

A method for unsupervised change detection and automatic radiometric normalization in multispectral data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Change detection for semi-automatic map database updating
Publication: Research › Report – Annual report year: 2011

Explicit signal to noise ratio in reproducing kernel Hilbert spaces
Publication: Research - peer-review › Article in proceedings – Annual report year: 2011

Greenland inland ice melt-off: Analysis of global gravity data from the GRACE satellites
Publication: Research - peer-review › Article in proceedings – Annual report year: 2011

Improved Nowcasting of Heavy Precipitation Using Satellite and Weather Radar Data
Publication: Research - peer-review › Poster – Annual report year: 2011

Infrastructure assessment for disaster management using multi-sensor and multi-temporal remote sensing imagery
Publication: Research - peer-review › Journal article – Annual report year: 2011

Sparse principal component analysis in hyperspectral change detection
Publication: Research › Conference article – Annual report year: 2011

Automatic change detection in RapidEye data using the combined MAD and kernel MAF methods
Publication: Research - peer-review › Article in proceedings – Annual report year: 2010
Bidrag til automatisering af ortofotomosaikfremstilling
Vestergaard, J. S., Andersen, S. G. & Nielsen, A. A. 2010
Publication: Research - peer-review › Poster – Annual report year: 2010

Change detection by the IR-MAD and kernel MAF methods in Landsat TM data covering a Swedish forest region
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2010

Kernel based eigenvalue-decomposition methods for analysing ham
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2010

Kernel maximum autocorrelation factor and minimum noise fraction transformations
Publication: Research - peer-review › Journal article – Annual report year: 2010

Kernel methods in orthogonalization of near-infrared hyperspectral images of maize kernels
Nielsen, A. A. 2010
Publication: Research - peer-review › Poster – Annual report year: 2010

Kernel parameter dependence in spatial factor analysis
Nielsen, A. A. 2010 IGARSS. IEEE, p. 4240-4243
Publication: Research - peer-review › Article in proceedings – Annual report year: 2010

Linear and kernel methods for multi- and hypervariate change detection
Publication: Research - peer-review › Conference article – Annual report year: 2010

Nye metoder til geobranchen
Aanæs, H. & Nielsen, A. A. 2010 In : Geoforum.dk. 115, p. 14-16
Publication: Research › Journal article – Annual report year: 2010

Seventeen years of global SSH anomalies analyzed by a maximum information based extension to EOF analysis
Vestergaard, J. S., Nielsen, A. A. & Andersen, O. B. 2010
Publication: Research - peer-review › Poster – Annual report year: 2010

A kernel version of spatial factor analysis
Nielsen, A. A. 2009 57th Session of the International Statistical Institute, ISI.
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Efficient Incorporation of Markov Random Fields in Change Detection
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

Kernel based orthogonalization for change detection in hyperspectral image data
Nielsen, A. A. 2009
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2009

Kernel based subspace projection of hyperspectral images
Publication: Research - peer-review › Poster – Annual report year: 2009
Kernel based subspace projection of near infrared hyperspectral images of maize kernels
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

Kernel empirical orthogonal function analysis of 1992-2008 global sea surface height anomaly data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

Kernel methods in orthogonalization of hyperspectral data
Nielsen, A. A. 2009
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2009

Kernel methods in orthogonalization of multi- and hypervariate data
Nielsen, A. A. 2009 IEEE International Conference on Image Processing, ICIP. IEEE, p. 3729-3732
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

Kernel principal component and maximum autocorrelation factor analyses for change detection
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

Recent sea level change analysed with kernel EOF
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2009

Treaty Monitoring
Publication: Research › Book chapter – Annual report year: 2009

Detection of Weather Radar Clutter
Publication: Research › Ph.D. thesis – Annual report year: 2008

Automatic Radiometric Normalization of Multitemporal Satellite Imagery with the Iteratively Re-weighted MAD Transformation
Publication: Research - peer-review › Journal article – Annual report year: 2008

Change detection using polarimetric synthetic aperture radar (SAR)
Publication: Research › Article in proceedings – Annual report year: 2008

Geostatistics and Analysis of Spatial Data
Nielsen, A. A. 2008
Publication: Education › Compendium/lecture notes – Annual report year: 2008

Investigation of alternative iteration schemes for the IR-MAD algorithm
Publication: Research › Conference article – Annual report year: 2008

Kernel principal component analysis for change detection
MAD change detection: a simple spatial extension and a nonlinear version

Model-based satellite image fusion

Advances in statistical change detection methods within the GMOSS Network

Automatic normalization of multi-temporal, hyperspectral data
Nielsen, A. A. & Canty, M. J. 2007

Complex Wishart distribution based analysis of polarimetric synthetic aperture radar data

Geostatistics and Analysis of Spatial Data
Nielsen, A. A. 2007

Investigation of Alternative Iteration Schemes for the IR-MAD Algorithm

Least Squares Adjustment: Linear and Nonlinear Weighted Regression Analysis
Nielsen, A. A. 2007

On Spatial Priors for Satellite Image Fusion

Orthogonal transformations for change detection, Matlab code (ENVI-like headers)
Nielsen, A. A. 2007

The Regularized Iteratively Reweighted MAD Method for Change Detection in Multi- and Hyperspectral Data

Using differential SAR interferometry for the measurement of surface displacement caused by underground nuclear explosions and comparison with optical change detection results
Detecting Weather Radar Clutter by Information Fusion With Satellite Images and Numerical Weather Prediction Model Output
Publication: Research - peer-review › Article in proceedings – Annual report year: 2006

Detecting weather radar clutter using satellite-based nowcasting products
Publication: Research - peer-review › Article in proceedings – Annual report year: 2006

Effect of catch location, season and quality on value of Icelandic cod (Gadus morhua) products
Publication: Research - peer-review › Book chapter – Annual report year: 2006

Long-term and high resolution measurements of bed level changes in a temperate, microtidal coastal lagoon
Publication: Research - peer-review › Journal article – Annual report year: 2006

Segment-based change detection for polarimetric SAR data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2006

Spectrally consistent satellite image fusion
Publication: Research - peer-review › Article in proceedings – Annual report year: 2006

Spectrally Consistent Satellite Image Fusion with Improved Image Priors
Publication: Research - peer-review › Article in proceedings – Annual report year: 2006

Visualization and unsupervised classification of changes in multispectral satellite imagery
Publication: Research - peer-review › Journal article – Annual report year: 2006

The use of Polarimetric EMISAR for the Mapping and Characterization of the Semi-Natural Environment
Sørensen, S. M., Conradsen, K., Nielsen, A. A. & Skriver, H. Jul 2005
Publication: Research › Ph.D. thesis – Annual report year: 2005

An iterative extension to the MAD transformation for change detection in multi- and hyperspectral remote sensing data
Nielsen, A. A. 2005 4th EARSel Workshop on Imaging Spectroscopy.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2005

A non-parametric 2D deformable template classifier
Publication: Research - peer-review › Journal article – Annual report year: 2005
Change Detection for Remote Monitoring of Underground Nuclear Testing: Comparison with Seismic and Associated Explosion Source Phenomenological Data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2005

Estimation of Critical Parameters in Concrete Production Using Multispectral Vision Technology
Publication: Research - peer-review › Article in proceedings – Annual report year: 2005

Functional Maximum Autocorrelation Factors
Publication: Research - peer-review › Article in proceedings – Annual report year: 2005

Multi- and hyperspectral remote sensing change detection with generalized difference images by the IR-MAD method
Publication: Research - peer-review › Article in proceedings – Annual report year: 2005

Orthogonal transformations for change detection, Matlab code
Nielsen, A. A. 2005
Publication: Research - peer-review › Computer programme – Annual report year: 2005

Regularisation in multi- and hyperspectral remote sensing change detection
Nielsen, A. A. 2005 6th Geomatic Week Conference.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2005

Sensitive change detection for remote sensing monitoring of nuclear treaties
Publication: Research - peer-review › Article in proceedings – Annual report year: 2005

Analysis of time-varying psoriasis lesion image patterns
Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Automatic Radiometric Normalization of Multitemporal Satellite Imagery
Publication: Research - peer-review › Journal article – Annual report year: 2004

Detection of buildings through multivariate analysis of spectral, textural, and shape based features
Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Geostatistik og analyse af spatielle data
Nielsen, A. A. 2004
Publication: Education › Compendium/lecture notes – Annual report year: 2004

Hyperspectral Data, Change Detection and the MAD Transformation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Kriging
Nielsen, A. A. 2004
Publication: Education › Compendium/lecture notes – Annual report year: 2004
Multi-set multi-temporal canonical analysis of psoriasis images
Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Unsupervised classification of changes in multispectral satellite imagery
Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

A test statistic in the complex Wishart distribution and its application to change detection in polarimetric SAR data
Publication: Research - peer-review › Journal article – Annual report year: 2003

CFAR Edge Detector for Polarimetric SAR Images
Publication: Research - peer-review › Journal article – Annual report year: 2003

Change detection by the MAD method in hyperspectral image data
Nielsen, A. A. & Muller, A. 2003 *Abstracts from the 3rd EARSel Workshop on Imaging Spectroscopy*. EARSel
Publication: Research - peer-review › Article in proceedings – Annual report year: 2003

Evaluation of the Wishart Test Statistic for Polarimetric SAR Data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2003

Evaluation of the Wishart test statistics for polarimetric SAR data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2003

Polarimetric synthetic aperture radar data and the complex Wishart distribution
Publication: Research - peer-review › Article in proceedings – Annual report year: 2003

Exploratory Analysis of Multivariate Data (Unsupervised Image Segmentation and Data Driven Linear and Nonlinear Decomposition)
Hilger, K. B., Ersbøll, B. K. & Nielsen, A. A. Mar 2002
Publication: Research › Ph.D. thesis – Annual report year: 2002

A Bivariate Extension to Traditional Empirical Orthogonal Function Analysis
Publication: Research - peer-review › Article in proceedings – Annual report year: 2002

A Change Oriented Extension of EOF Analysis Applied to the 1996-1997 AVHRR Sea Surface Temperature Data
Publication: Research - peer-review › Journal article – Annual report year: 2002
A Temporal Extension to Traditional Empirical Orthogonal Function Analysis
Publication: Research - peer-review › Article in proceedings – Annual report year: 2002

Linear and Nonlinear Multiset Canonical Correlation Analysis (invited talk)
Publication: Research - peer-review › Article in proceedings – Annual report year: 2002

Multiset Canonical Correlations Analysis and Multispectral, Truly Multitemporal Remote Sensing Data
Publication: Research - peer-review › Journal article – Annual report year: 2002

Polarimetric Segmentation Using Wishart Test Statistic
Publication: Research - peer-review › Article in proceedings – Annual report year: 2002

Simultaneous maximization of spatial and temporal autocorrelation in spatio-temporal data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2002

Spatio-temporal analysis including multi-objective orthogonalisation and independent component analysis
Publication: Research - peer-review › Article in proceedings – Annual report year: 2002

An ACE-based Nonlinear Extension to Traditional Empirical Orthogonal Function Analysis
Publication: Research - peer-review › Article in proceedings – Annual report year: 2001

A Scheme for Initial Exploratory Data Analysis of Multivariate Image Data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2001

Bio-optical Modelling: DECO Data Report
Nielsen, A. A. 2001
Publication: Research › Report – Annual report year: 2001

Change detection in polarimetric SAR data and the complex Wishart distribution
Publication: Research - peer-review › Article in proceedings – Annual report year: 2001

Change Detection in the 1996-1997 AVHRR Oceans Pathfinder Sea Surface Temperature Data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2001

El Niño Build-up Detection by Means of Canonical Correlations in the 1996-1997 SST and SSH Data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2001
Polarimetric Edge Detector Based on the Complex Wishart Distribution
Publication: Research - peer-review » Article in proceedings – Annual report year: 2001

Simultaneous Determination of Water Constituent Concentrations and Partial Least Squares
Nielsen, A. A. 2001 7th Scandinavian Symposium on Chemometrics, Copenhagen, Denmark, August 19-23.
Publication: Research - peer-review » Article in proceedings – Annual report year: 2001

Spectral Mixture Analysis: Linear and Semi-parametric Full and Iterated Partial Unmixing in Multi- and Hyperspectral Image Data
Nielsen, A. A. 2001 In : Journal of Mathematical Imaging and Vision. 15, 1-2, p. 17-37
Publication: Research - peer-review » Journal article – Annual report year: 2001

Spectral Mixture Analysis: Linear and Semi-parametric Full and Iterated Partial Unmixing in Multi- and Hyperspectral Image Data.
Publication: Research - peer-review » Journal article – Annual report year: 2001

A multivariate approach to seismic 4D analysis, Troll West Oil Province.
Publication: Research - peer-review » Report – Annual report year: 2000

A multivariate approach to seismic 4D analysis, Troll West Oil Province (2)
Publication: Research - peer-review » Report – Annual report year: 2000

Aspects of remote sensing of the GEOid and Sea level Of the North Atlantic Region (GEOSONAR) project
Hilger, K. B., Nielsen, A. A. & Knudsen, P. 2000
Publication: Research › Poster – Annual report year: 2000

Enhancement of Ocean Related Signal by Suppression of Undesired Spectra in Remotely Sensed Multivariate SeaWiFS Images in the GEOSONAR Project
Publication: Research - peer-review » Article in proceedings – Annual report year: 2000

Maximum Autocorrelation Factorial Kriging
Publication: Research - peer-review » Article in proceedings – Annual report year: 2000

New approaches for change detection studies
Nielsen, A. A. 2000 Proceedings of Seminar on Remote sensing and image analysis techniques for revision of topographic databases, 29/2 KMS, The National Survey and Cadastre, Copenhagen, Denmark, p. 24-33
Publication: Research - peer-review » Article in proceedings – Annual report year: 2000

Sensitivity study of a semiautomatic supervised classifier applied to minerals from x-ray mapping images
Publication: Research - peer-review » Journal article – Annual report year: 2000

Spectral identification of plant communities for mapping of semi-natural grasslands
Publication: Research - peer-review » Journal article – Annual report year: 2000
Supervised Mineral Classification with Semi-automatic Training and Validation Set Generation in Scanning Electron Microscope Energy Dispersive Spectroscopy Images of Thin Sections
Publication: Research › Journal article – Annual report year: 2000

Targeting input data for change detection studies by suppression of undesired spectra
Publication: Research › Article in proceedings – Annual report year: 2000

Unsupervised classification of x-ray mapping images of polished section
Publication: Research › Article in proceedings – Annual report year: 2000

Unsupervised Fuzzy Clustering of Multivariate Image Data
Hilger, K. B. & Nielsen, A. A. 2000
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An Extension to a Filter Implementation of Local Quadratic Surface for Image Noise Estimation
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Classification of Minerals by EDS Images from a Hitachi S-3000N Low Vacuum SEM.
Publication: Research › Journal article – Annual report year: 1999

Computerised image analysis of biocrystallograms originating from agricultural products
Publication: Research › Journal article – Annual report year: 1999

DANMAC: Final Report
Nielsen, A. A. 1999
Publication: Research › Report – Annual report year: 1999

DECO: Mid-Term Report (2nd Annual Report)
Nielsen, A. A. 1999
Publication: Research › Report – Annual report year: 1999

Final report of the BioSonar Project: MAST-III Project No. MAS3-CT95-0026
Nielsen, A. A. & Schultz, N. 1999
Publication: Research › Report – Annual report year: 1999

GEOSONAR: Mid-Term Report (2nd Annual Report)
Nielsen, A. A. 1999
Publication: Research › Report – Annual report year: 1999
Geostatistik og analyse af spatielle data: Invited contribution
Nielsen, A. A. 1998 GIS i Danmark.
Publication: Research - peer-review › Book chapter – Annual report year: 1998

Geostatistik og analyse af spatielle data: Forelæsningsnote
Publication: Research - peer-review › Book – Annual report year: 1998

Linear Mixture Models and Partial Unmixing in Multi- and Hyperspectral Image Data
Publication: Research - peer-review › Article in proceedings – Annual report year: 1998

Multivariate Alteration Detection (MAD) and MAF Postprocessing In Multispectral, Bitemporal Image Data: New Approaches to Change Detection Studies
Publication: Research - peer-review › Journal article – Annual report year: 1998

Orthogonal Transformations
Publication: Research - peer-review › Book – Annual report year: 1998

Semi-automatic supervised classification of minerals from x-ray mapping images
Publication: Research - peer-review › Article in proceedings – Annual report year: 1998

Analyses of Spectral-Biophysical Relationships for a Wheat Canopy.
Publication: Research - peer-review › Article in proceedings – Annual report year: 1997

An Application of Discriminant Analysis to Pattern Recognition of Selected Contaminated Soil Features in Thin Sections
Ribeiro, A. B. & Nielsen, A. A. 1997 In : Geoderma. 76, 3-4, p. 253-262
Publication: Research - peer-review › Journal article – Annual report year: 1997

Application of Image Processing: Techniques and Geostatistical Methods to the Aerial Gamma-Ray Spectrometric and Aeromagnetic Survey Data of Wadi Al Miah - Wadi Ash Shalul, Central Eastern Desert, Egypt as an Aid to Geological Mapping and Mineral Exploration
Publication: Research - peer-review › Report – Annual report year: 1997

A Simple Neural Network Contextual Classifier
Publication: Research - peer-review › Article in proceedings – Annual report year: 1997

casi Scanner Test Data
Larsen, R., Nielsen, A. A. & Conradsen, K. 1997 Department of Mathematical Modelling, Technical University of Denmark.
Publication: Research - peer-review › Report – Annual report year: 1997

Change Detection in Bi-temporal EMISAR Data from Kalø, Denmark, by Means of Canonical Correlations Analysis
Publication: Research - peer-review › Article in proceedings – Annual report year: 1997
Classification of EMISAR C-band Data: M17/M25: DANMAC Data Report.
Nielsen, A. A., Larsen, R. & Conradsen, K. 1997 Department of Mathematical Modelling, Technical University of Denmark.
Publication: Research - peer-review › Report – Annual report year: 1997

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Development of a Model for Classification of 22 Minerals in Siliciclastic Rocks Based on SEM EDS Images.
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Publication: Research - peer-review › Report – Annual report year: 1997

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A Geostatistical Approach to Indoor Surface Sampling Strategies
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Nielsen, A. A. 1981 Energihåndbogen.
Publication: Research - peer-review › Book chapter – Annual report year: 1981

Projects:

Classification of Targets in Synthetic Aperture Radar Imaging
Malmgren-Hansen, D., Nielsen, A. A., Engholm, R., Skriver, H., Winther, O., Belongie, S. & Jenssen, R.
01/09/2014 → 31/08/2017
Project: PhD

Image Analysis for Nanoparticle Guided Radiotherapy
Christensen, A. N., Conradsen, K., Larsen, R., Nielsen, A. A., Bech, M. & Østergaard, L. R.
01/10/2012 → 21/01/2016
Project: PhD

Control and Surveillance of Automated Production Steps using Computer Vision
15/07/2012 → 25/08/2016
Project: PhD

Global and Artic Sea Level Change from Satellite Altimetry
01/11/2011 → 18/09/2015
Project: PhD

A Grand Challenge: Large Scale Event Recognition and Tracking
Vestergaard, J. S., Larsen, R., Nielsen, A. A., Carstensen, J. M., Benediktsson, J. A. & Jenssen, R.
01/09/2011 → 21/11/2014
Project: PhD

SLS based dairy process control systems
15/12/2010 → 29/08/2014
The Virtual Slaughterhouse - Constructing a virtual Knife
Hansen, M. F., Larsen, R., Christensen, L. B., Nielsen, A. A., Bajcsy, R. & Modersitzki, J.
01/01/2006 → 01/07/2009
Project: PhD

CT Scanning and Automated Segmentation of Pig Bodies
Vester-Christensen, M., Larsen, R., Christensen, L. B., Nielsen, A. A., Allen, P. & Barillot, C.
01/07/2005 → 11/02/2009
Project: PhD

Detektering af falske ekkoer i data fra vejradar
01/10/2004 → 05/11/2008
Project: PhD

Development of Statistical Methods and Models for Evaluation and Determination of Environmental monitoring programs
Lophaven, S. N., Rootzén, H., Carstensen, N. J., Nielsen, A. A., Grimvall, A. & Guttorp, P.
01/04/2001 → 09/02/2005
Project: PhD

Fotogrammetrisk opbygning af 3D landskabs- og bymodel
01/12/1999 → 28/10/2004
Project: PhD

Modelling of the geoid and the north Atlantic Sea level
Hilger, K. B., Ersbøll, B. K., Nielsen, A. A., Madsen, H., Switzer, P. & Windfeld, K.
01/10/1998 → 27/03/2002
Project: PhD

2D og 3D objektmåling til styring og kvalitetskontrol i industri
Gramkow, C., Jessen, F. & Nielsen, A. A.
01/01/1997 → …
Project: PhD

The use of polarimetric SAR for the mapping and characterization of the natural environment
Sørensen, S. M., Conradsen, K., Nielsen, A. A., Skriver, H., Carstensen, J. M., Hasager, C. B. & Quegan, S.
01/01/1997 → 19/07/2005
Project: PhD

BioSonar (EU project MA53-CT95-0026)
Conradsen, K., Sørensen, P. S., Ersbøll, B. K., Ersbøll, A. K., Nielsen, A. A., Hilger, K. B. & Schultz, N.
01/02/1996 → 31/01/1999
Project

DANMAC - DANish Multisensor Airborne Campaign
Nielsen, A. A.
01/01/1996 → 30/04/1999
Project

DECO, Danish Environmental monitoring of COastal waters. Project no.: 1221
Nielsen, A. A.
01/01/1996 → 31/12/2000
Project
GEOSONAR, GEOid and Sealevel Of the North Atlantic Region.
Nielsen, A. A.
01/01/1996 → 31/12/2001
Project

Bladskivebestemmelse for sukkerroer ved hjælp af billedanalyse
Frydendal, I., Conradsen, K., Carstensen, J. M. & Nielsen, A. A.
01/05/1995 → …
Project: PhD

Vegetation and soil
Skriver, H., Svendsen, M. T., McCloy, K., Thomsen, A., Hansen, B. U., Nielsen, A. A. & Groom, G.
01/02/1994 → 31/12/2000
Project

Segmentering og efterfølgende visualisering af 3-dimensionelle billeddata
Bro-Nielsen, M., Conradsen, K., Brady, M. & Nielsen, A. A.
01/04/1993 → 13/05/1997
Project: PhD

Statistiske metoder til genkendelse af mønstre og objektyper i billeder
Rosholm, A., Conradsen, K., Haslett, J. & Nielsen, A. A.
01/04/1993 → 26/11/1997
Project: PhD

Multivariate Data-analysis of regularly and irregularly sampled spatial data
Nielsen, A. A. & Conradsen, K.
01/01/1992 → 16/12/1994
Project: PhD

Activities:

Multi-temporal images and semi-automatic map updating
Nielsen, A. A. (Speaker)
4 Mar 2010
Activity: Talks and presentations › Conference presentations

Kernel methods in change detection based on generalised multivariate difference images
Nielsen, A. A. (Speaker)
28 Jan 2010
Activity: Talks and presentations › Conference presentations

Least Squares Adjustment: Linear and Nonlinear Weighted Regression Analysis
Nielsen, A. A. (Other)
1 Jan 2007 → …
Activity: Other