Analysis of MRI by fractals for prediction of sensory attributes: A case study in loin
Publication: Research - peer-review › Journal article – Annual report year: 2018

Computing segmentations directly from x-ray projection data via parametric deformable curves: Paper
Publication: Research - peer-review › Journal article – Annual report year: 2018

Convolutional Neural Networks - Generalizability and Interpretations
Publication: Research › Ph.D. thesis – Annual report year: 2018

Designing interactively with elastic splines
Publication: Research - peer-review › Journal article – Annual report year: 2018

Effects of menopause and high-intensity training on insulin sensitivity and muscle metabolism
Publication: Research - peer-review › Journal article – Annual report year: 2018

Linear, Transfinite and Weighted Method for Interpolation from Grid Lines Applied to OCT Images
Publication: Research - peer-review › Journal article – Annual report year: 2018

Phase function of a spherical particle when scattering an inhomogeneous electromagnetic plane wave
Frisvad, J. R. 2018 In : Journal of the Optical Society of America A. 35, 4, p. 669-680
Publication: Research - peer-review › Journal article – Annual report year: 2018

Porosity and density measurements of sodium acetate trihydrate for thermal energy storage
Publication: Research - peer-review › Journal article – Annual report year: 2018

Simulation tools for scattering corrections in spectrally resolved X-ray Computed Tomography using McXtrace
Publication: Research - peer-review › Journal article – Annual report year: 2018

Sparse Classification - Methods & Applications
Publication: Research › Ph.D. thesis – Annual report year: 2018

Statistical validation of individual fibre segmentation from tomograms and microscopy
An Error Analysis of Structured Light Scanning of Biological Tissue
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

An image-based method for objectively assessing injection moulded plastic quality
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

An Investigation of Methods for CT Synthesis in MR-only Radiotherapy
Publication: Research › Ph.D. thesis – Annual report year: 2017

Anthropometry, DXA and leptin reflect subcutaneous but not visceral abdominal adipose tissue by MRI in 197 healthy adolescents
Publication: Research - peer-review › Journal article – Annual report year: 2017

A performance assessment of a 2-axis scanning mirror galvanometer for powder bed fusion
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

A Probabilistic Framework for Curve Evolution
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Augmented Reality Interfaces for Additive Manufacturing
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Automatic Segmentation of Abdominal Fat in MRI-Scans, Using Graph-Cuts and Image Derived Energies
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

A variational study on BRDF reconstruction in a structured light scanner
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Cache-mesh, a Dynamics Data Structure for Performance Optimization
Publication: Research - peer-review › Journal article – Annual report year: 2017

Canonical analysis of sentinel-1 radar and sentinel-2 optical data
Disability in progressive MS is associated with T2 lesion changes

Discrimination of haploid and diploid maize kernels via multispectral imaging

Effects of imaging gradients in sequences with varying longitudinal storage time-Case of diffusion exchange imaging
Lasic, S., Lundell, H., Topgaard, D. & Dyrby, T. B. 2017 In : Magnetic Resonance in Medicine.

Erratum to: A global approach for sparse representation of uncertainty in Life Cycle Assessments of waste management systems

Evaluation of optical functional surfaces on the injection moulding insert by micro milling process

Fast, versatile, and non-destructive biscuit inspection system using spectral imaging

Foreign object detection in multispectral X-ray images of food items using sparse discriminant analysis

Geometrical Characterisation of Individual Fibres From X-Ray Tomograms

Graphite nodules in fatigue-tested cast iron characterized in 2D and 3D

High-resolution magnetic resonance imaging reveals nuclei of the human amygdala: manual segmentation to automatic atlas

Identification Of Barley Grain Mycoflora By Next Generation Sequencing And Videometer Multispectral Imaging
Importance of waste composition for Life Cycle Assessment of waste management solutions
Bisinella, V., Götze, R., Conradsen, K., Damgaard, A., Christensen, T. H. & Astrup, T. F. 2017 In : Journal of Cleaner Production. 164, p. 1180-1191

Improving SAR Automatic Target Recognition Models with Transfer Learning from Simulated Data

Individual fibre segmentation from 3D X-ray computed tomography for characterising the fibre orientation in unidirectional composite materials

In-line 3D print failure detection using computer vision

Integrating Multi-Purpose Natural Language Understanding, Robot's Memory, and Symbolic Planning for Task Execution in Humanoid Robots

Interactive Stable Ray Tracing

Interpolation from Grid Lines: Linear, Transfinite and Weighted Method

Investigation of Tooling for Anisotropic Optical Functional Surfaces
Li, D., Regi, F., Zhang, Y., Madsen, M. H., Nielsen, J. B. & Tosello, G. 2017

Maximum auto-mutual-information factor analysis

Medial structure generation for registration of anatomical structures

Modeling Structural Brain Connectivity
Modeling the Anisotropic Reflectance of a Surface with Microstructure Engineered to Obtain Visible Contrast after Rotation

MR spectroscopy of hepatic fat and adiponectin and leptin levels during testosterone therapy in type 2 diabetes: a randomized, double-blinded, placebo-controlled trial: A randomized, double-blinded, placebo-controlled trial

Multi-phaseVolumeSegmentationwithTetrahedralMesh
Nguyen Trung, T., Dahl, V. A. & Bærentzen, J. A. 2017

Multispectral UV imaging for determination of the tablet coating thickness

Multispectral x-ray CT: multivariate statistical analysis for efficient reconstruction

New approach for validating the segmentation of 3D data applied to individual fibre extraction

Photogrammetry for Repositioning in Additive Manufacturing

PicPrint: Embedding pictures in additive manufacturing

Prediction of Motion Induced Image Degradation Using a Markerless Motion Tracker

Prediction of pork quality parameters by applying fractals and data mining on MRI

Prediction of Motion Induced Image Degradation Using a Markerless Motion Tracker

Process chain for fabrication of anisotropic optical functional surfaces on polymer components
Quantitative evaluation of peptide analogue distribution in mouse tissue using 3D computer modelling

Quantitatively Measured Anatomic Location and Volume of Optic Disc Drusen: An Enhanced Depth Imaging Optical Coherence Tomography Study

Random walks with statistical shape prior for cochlea and inner ear segmentation in micro-CT images

Real Time MRI Motion Correction with Markerless Tracking

Scalable group level probabilistic sparse factor analysis

Scene reassembly after multimodal digitization and pipeline evaluation using photorealistic rendering

Sensation of movement: An introduction

Sense of moving: Moving closer to the movement
Christensen, M. S. & Grünbaum, T. 2017 Sensation of Movement. Christensen, M. S. & Grünbaum, T. (eds.). Routledge, Ch. 4, p. 64-64 (Current Issues in Consciousness Research).

Short parietal lobe connections of the human and monkey brain

Site Monitoring with Synthetic Aperture Radar Satellite Imagery
Spatial noise-aware temperature retrieval from infrared sounder data

State estimation of the performance of gravity tables using multispectral image analysis

Statistical Image Analysis of Tomograms with Application to Fibre Geometry Characterisation

Thalamocortical Connectivity and Microstructural Changes in Congenital and Late Blindness

The challenge of mapping the human connectome based on diffusion tractography

The Crossed Projection to the Striatum in Two Species of Monkey and in Humans: Behavioral and Evolutionary Significance
Innocenti, G. M., Dyrby, T. B., Andersen, K. W., Rouiller, E. M. & Caminiti, R. 2017 In : Cerebral Cortex. 27, 6, p. 3217-3230

The impact of tool wear on the functionality of replicated polymer surface with micro structures
Li, D., Zhang, Y., Regi, F., Tosello, G. & Nielsen, J. B. 2017 Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Threat detection of liquid explosives and precursors from their x-ray scattering pattern using energy dispersive detector technology

To be active through indoor-climbing: an exploratory feasibility study in a group of children with cerebral palsy and typically developing children
Christensen, M. S., Jensen, T., Voigt, C. B., Nielsen, J. B. & Lorentzen, J. 2017 In : Archives of Neurology. 17, 1, 20 p., 112

Towards Plug-n-Play robot guidance: Advanced 3D estimation and pose estimation in Robotic applications
Unidirectional Fibre Composite Characterisation from X-ray Tomography
Publication: Research › Ph.D. thesis – Annual report year: 2017

Unraveling fermentation data – a Novozymes case study
Baum, A., Vermue, L., Moiseynenko, R., Jørgensen, T. M. & Devantier, R. 2017
Publication: Research › Poster – Annual report year: 2017

User-friendly simultaneous tomographic reconstruction and segmentation with class priors
Publication: Research › Conference abstract for conference – Annual report year: 2017

UV imaging of Multiple Unit Pellet System (MUPS) tablets: A case study of acetylsalicylic acid stability
Publication: Research › Article in proceedings – Annual report year: 2017

Virtual reality inspection and painting with measured BRDFs
Publication: Research › Article in proceedings – Annual report year: 2017

Visualization and labeling of point clouds in virtual reality
Stets, J. D., Sun, Y., Greenwald, S. W. & Coming, W. 2017 Proceedings of SA ’17 SIGGRAPH Asia 2017 . 2 p. 31
Publication: Research › 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 › Journal article – Annual report year: 2017

Wearable Gaze Trackers: Mapping Visual Attention in 3D
Publication: Research › Article in proceedings – Annual report year: 2017

Active Appearance Segmentation for Intensity Inhomogeneity in Light Sheet Fluorescence Microscopy
Publication: Research › Article in proceedings – Annual report year: 2016

A framework for geometry acquisition, 3-D printing, simulation, and measurement of head-related transfer functions with a focus on hearing-assistive devices
Publication: Research › Article in proceedings – Annual report year: 2016

A generative model for segmentation of tumor and organs-at-risk for radiation therapy planning of glioblastoma patients
Publication: Research › Article in proceedings – Annual report year: 2016
A Generative Probabilistic Model and Discriminative Extensions for Brain Lesion Segmentation - With Application to Tumor and Stroke
Publication: Research - peer-review › Journal article – Annual report year: 2016

A global approach for sparse representation of uncertainty in Life Cycle Assessments of waste management systems
Publication: Research - peer-review › Journal article – Annual report year: 2016

A Large-Scale 3D Object Recognition dataset
Publication: Research - peer-review › Article in proceedings – 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

A patch-based pseudo-CT approach for MRI-only radiotherapy in the pelvis
Publication: Research - peer-review › Journal article – Annual report year: 2016

A self-calibrating robot based upon a virtual machine model of parallel kinematics
Publication: Research - peer-review › Journal article – Annual report year: 2016

Atomic Stretch: Optimally bounded real-time stretching and beyond
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2016

Autoencoding beyond pixels using a learned similarity metric
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Automatic measurement of orbital volume in unilateral coronal synostosis
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Automatic Model Generation Framework for Computational Simulation of Cochlear Implantation
Publication: Research - peer-review › Journal article – Annual report year: 2016

Bayesian longitudinal segmentation of hippocampal substructures in brain MRI using subject-specific atlases
Brain Tumor Segmentation Using a Generative Model with an RBM Prior on Tumor Shape

Change detection in a short time sequence of polarimetric C-band SAR data

Change detection in a time series of polarimetric SAR data by an omnibus test statistic and its factorization

Cochlear implant electrode localization in post-operative CT using a spherical measure

Cochlear Segmentation using Iterated Random Walks with Shape Prior

Computational Analysis of Brain Images: Towards a Useful Tool in Clinical Practice

Computed tomography synthesis from magnetic resonance images in the pelvis using multiple random forests and auto-context features

Data Analysis of Medical Images: CT, MRI, Phase Contrast X-ray and PET

Contact area measurements on structured surfaces
Küçükyıldız, Ö. C., Jensen, S. H. N. & De Chiffre, L. 2016

Cuttable Ruled Surface Strips for Milling

Cuttable Ruled Surface Strips for Milling

Cuttable Ruled Surface Strips for Milling

Cuttable Ruled Surface Strips for Milling

Cuttable Ruled Surface Strips for Milling
DeepPy: Pythonic deep learning
Publication: Research › Report – Annual report year: 2016

Designing for Color in Additive Manufacturing
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Designing for hot-blade cutting: Geometric Approaches for High-Speed Manufacturing of Doubly-Curved Architectural Surfaces
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

Development and Application of Tools for MRI Analysis - A Study on the Effects of Exercise in Patients with Alzheimer's Disease and Generative Models for Bias Field Correction in MR Brain Imaging
Publication: Research › Ph.D. thesis – Annual report year: 2016

Fast and Sequence-Adaptive Whole-Brain Segmentation Using Parametric Bayesian Modeling
Publication: Research - peer-review › Journal article – Annual report year: 2016

Free-form image registration of human cochlear μCT data using skeleton similarity as anatomical prior
Publication: Research - peer-review › Journal article – Annual report year: 2015

GyroVR: Simulating Inertia in Virtual Reality using Head Worn Flywheels
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Hot Blade Cuttings for the Building Industries
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Hybrid fur rendering: combining volumetric fur with explicit hair strands
Andersen, T. G., Falster, V., Frisvad, J. R. & Christensen, N. J. 2016 In : The Visual Computer. 32, 6, p. 739-749
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
Improving topology optimization intuition through games

Independent vector analysis for capturing common components in fMRI group analysis

Individual Differences in the Alignment of Structural and Functional Markers of the V5/MT Complex in Primates

Influence of Maturation, Pathology and Functional Lateralization on 3D Sulcal Morphology using MRI

Injectable silver nanosensors: in vivo dosimetry for external beam radiotherapy using positron emission tomography

In-Situ Monitoring in Additive Manufacturing Using Contact Image Sensors

Interactive Appearance Prediction for Cloudy Beverages

Interactive directional subsurface scattering and transport of emergent light

Iterated random walks with shape prior

Large-Scale Data for Multiple-View Stereopsis
Noninvasive particle sizing using camera-based diffuse reflectance spectroscopy
Publication: Research - peer-review › Journal article – Annual report year: 2016

Novelty detection of foreign objects in food using multi-modal X-ray imaging
Publication: Research - peer-review › Journal article – 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

On Practical Sampling of Bidirectional Reflectance
Publication: Research › Ph.D. thesis – Annual report year: 2017

Precision and Accuracy Parameters in Structured Light 3-D Scanning
Publication: Research - peer-review › Conference article – Annual report year: 2016

Quantitative surface topography assessment of directly compressed and roller compacted tablet cores using photometric stereo image analysis
Allesø, M., Carstensen, J. M., Holm, P. & Holm, R. 2016 In : European Journal of Pharmaceutical Sciences. 87, p. 79-87
Publication: Research - peer-review › Journal article – Annual report year: 2016

Quantitative tumor heterogeneity assessment on a nuclear population basis
Publication: Research - peer-review › Journal article – Annual report year: 2016

Random walks with shape prior for cochlea segmentation in ex vivo μCT
Publication: Research - peer-review › Journal article – Annual report year: 2016

Rapid Assessment of Tablet Film Coating Quality by Multispectral UV Imaging
Publication: Research - peer-review › Journal article – Annual report year: 2016

Rationalization with ruled surfaces in architecture
Publication: Research › Ph.D. thesis – Annual report year: 2016

Real Time Structured Light and Applications
Publication: Research › Ph.D. thesis – Annual report year: 2016
Regional Hippocampal Atrophy and Higher Levels of Plasma Amyloid-Beta Are Associated With Subjective Memory Complaints in Nondemented Elderly Subjects
Publication: Research - peer-review › Journal article – Annual report year: 2016

Reliable Gait Recognition Using 3D Reconstructions and Random Forests - An Anthropometric Approach
Publication: Research - peer-review › Journal article – Annual report year: 2016

Robotic Hot-Blade Cutting: An Industrial Approach to Cost-Effective Production of Double Curved Concrete Structures
Publication: Research - peer-review › Book chapter – Annual report year: 2016

Segmentation of individual fibres in a uni-directional composite from 3D X-ray computed tomography data
Publication: Research - peer-review › Poster – 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

Simultaneous Reconstruction and Segmentation with Class-Specific Priors
Publication: Research › Ph.D. thesis – Annual report year: 2016

Simultaneous Whole-Brain Segmentation and White Matter Lesion Detection Using Contrast-Adaptive Probabilistic Models
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Single-Shot-RARE for rapid 3D hyperpolarized metabolic ex vivo tissue imaging: RF-pulse design for semi-dense spectra
Magnusson, P. O., Jensen, P. R., Dyrby, T. B., Karlsson, M., Lerche, M. H. & Hanson, L. G. 2016
Publication: Research - peer-review › Poster – Annual report year: 2016

Special section on 19th Scandinavian conference on image analysis (SCIA 2015)
Publication: Research › Editorial – 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

Statistical shape model with random walks for inner ear segmentation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016
Tangible 3D modeling of coherent and themed structures
Publication: Research › peer-review › Journal article – Annual report year: 2016

The Traveling Optical Scanner – Case Study on 3D Shape Models of Ancient Brazilian Skulls
Publication: Research › peer-review › Article in proceedings – Annual report year: 2016

Training Convolutional Neural Networks for Translational Invariance on SAR ATR
Publication: Research › peer-review › Article in proceedings – Annual report year: 2016

Tunnel Effect in CNNs: Image Reconstruction From Max-Switch Locations
Publication: Research › peer-review › Journal article – Annual report year: 2016

Using Diffusion Tractography to Predict Cortical Connection Strength and Distance: A Quantitative Comparison with Tracers in the Monkey
Publication: Research › peer-review › Journal article – Annual report year: 2016

X-ray based micromechanical finite element modeling of composite materials
Publication: Research › peer-review › Article in proceedings – Annual report year: 2016

Method for Surface Scanning in Medical Imaging and Related Apparatus
Publication: Research › Patent – Annual report year: 2015

3D interactive topology optimization on hand-held devices
Publication: Research › peer-review › Journal article – Annual report year: 2015

4-D PET-MR with Volumetric Navigators and Compressed Sensing
Publication: Research › peer-review › Book chapter – Annual report year: 2015

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

Accuracy in Robot Generated Image Data Sets
Publication: Research › peer-review › Article in proceedings – Annual report year: 2015
A computational atlas of the hippocampal formation using ex vivo, ultra-high resolution MRI: Application to adaptive segmentation of in vivo MRI.
Publication: Research - peer-review › Journal article – Annual report year: 2015

An algorithm for optimal fusion of atlases with different labeling protocols
Publication: Research - peer-review › Journal article – Annual report year: 2015

Anatomically Correct Surface Recovery: A Statistical Approach
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

An Ensemble of 2D Convolutional Neural Networks for Tumor Segmentation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

A new self-made digital slide scanner and microscope for imaging and quantification of fluorescent microspheres
Publication: Research - peer-review › Journal article – Annual report year: 2015

An MRI Compatible Surface Scanner
Publication: Research › Poster – Annual report year: 2015

A Parameter Choice Method for Simultaneous Reconstruction and Segmentation
Publication: Research › Report – 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

Assisting doctors on assessing movements in infants using motion tracking
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2016

Automatic Generation of a Computational Model for Monopolar Stimulation of Cochlear Implants
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2015

A virtual seed file: the use of multispectral image analysis in the management of genebank seed accessions
Publication: Research - peer-review › Journal article – Annual report year: 2015
Bayesian segmentation of brainstem structures in MRI
Publication: Research - peer-review › Journal article – Annual report year: 2015

Binary pattern flavored feature extractors for Facial Expression Recognition: An overview
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Boundary Fractal Analysis of Two Cube-oriented Grains in Partly Recrystallized Copper
Publication: Research - peer-review › Conference article – Annual report year: 2015

Brain Image Motion Correction: Impact of Incorrect Calibration and Noisy Tracking
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

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
Characterization of boundary roughness of two cube grains in partly recrystallized copper

Cochlear Implant Planning, Selection and Simulation with Patient Specific Data

Combined Shape and Topology Optimization

Combined shape and topology optimization of 3D structures

Comparison of a multispectral vision system and a colorimeter for the assessment of meat color

Computer-aided diagnosis of pulmonary diseases using x-ray darkfield radiography

Cone beam computed tomography guided treatment delivery and planning verification for magnetic resonance imaging only radiotherapy of the brain

Convolutional Neural Networks for SAR Image Segmentation

Correction of Motion Artifacts for Real-Time Structured Light

Dictionary Based Segmentation in Volumes
Dictionary Based Segmentation in Volumes
Publication: Research - peer-review › Poster – Annual report year: 2016

Differential effects of strength training and testosterone treatment on soluble CD36 in aging men: Possible relation to changes in body composition
Publication: Research - peer-review › Journal article – Annual report year: 2015

Discriminating Yogurt Microstructure Using Diffuse Reflectance Images
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Evaluation of Yogurt Microstructure Using Confocal Laser Scanning Microscopy and Image Analysis
Publication: Research - peer-review › Journal article – Annual report year: 2015

Fresh meat color evaluation using a structured light imaging system
Publication: Research - peer-review › Journal article – Annual report year: 2015

Injectable Colloidal Gold for Use in Intrafractional 2D Image-Guided Radiation Therapy
Publication: Research - peer-review › Journal article – Annual report year: 2015

Interactive Global Illumination Effects Using Deterministically Directed Layered Depth Maps
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

Markerless PET motion correction: tracking in narrow gantries through optical fibers
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Maturational trajectories of subcortical grey matter microstructure: A longitudinal study
Publication: Research - peer-review › Poster – Annual report year: 2015

Multispectral Imaging of Meat Quality - Color and Texture
Publication: Research › Ph.D. thesis – Annual report year: 2015

Nanoparticles and nanoimaging for organic solar cells
Publication: Research › Ph.D. thesis – Annual report year: 2015

New equations to calculate 3D joint centres in the lower extremities
Publication: Research - peer-review › Journal article – Annual report year: 2015

Non-Invasive Assessment of Dairy Products Using SpatiallyResolved Diffuse Reflectance Spectroscopy
Publication: Research - peer-review › Journal article – Annual report year: 2015

On Optimal, Minimal BRDF Sampling for Reflectance Acquisition
Publication: Research - peer-review › Journal article – 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

Oriented Shape Index Histograms for Cell Classification
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Our 3D Vision Data-Sets in the Making
Patch-based generation of a pseudo CT from conventional MRI sequences for MRI-only radiotherapy of the brain

Patient-Specific Virtual Insertion of Electrode Array for Electrical Simulations of Cochlear Implants

Predicting Color Output of Additive Manufactured Parts

Predicting Detailed Inner Ear Anatomy from Pre-Oppreoperational CT for cochlear implant surgery

Predicting Facial characteristics from complex polygenic variations

Quality Assurance Based on Descriptive and Parsimonious Appearance Models

Quantification of Brain Access of Exendin-4 in the C57BL Mouse Model by SPIM Fluorescence Imaging and the Allen Mouse Brain Reference Model

Quantifying uncertainty in sustainability assessments: from feedstock to end-of-life


Relaxed Simultaneous Tomographic Reconstruction and Segmentation with Class Priors for Poisson Noise

Relaxed Simultaneous Tomographic Reconstruction and Segmentation with Class Priors for Poisson Noise
Reliability in Measuring Head Related Transfer Functions of Hearing Aids
Publication: Research - peer-review › Journal article – 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

Simultaneous tomographic reconstruction and segmentation with class priors
Publication: Research - peer-review › Journal article – Annual report year: 2015

Spatial Accuracy of Embedded Surface Coloring in Color 3D Printing
Publication: Research - peer-review › Journal article – Annual report year: 2015

Structured Light Scanning of Skin, Muscle and Fat
Publication: Research › Report – Annual report year: 2015

Teach it Yourself - Fast Modeling of Industrial Objects for 6D Pose Estimation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

The Multimodal Brain Tumor Image Segmentation Benchmark (BRATS)
Publication: Research - peer-review › Journal article – Annual report year: 2015

Tissue Classification
Publication: Research - peer-review › Encyclopedia chapter – Annual report year: 2015

Transmission Near-Infrared (NIR) and Photon Time-of-Flight (PTOF) Spectroscopy in a Comparative Analysis of Pharmaceuticals.
Publication: Research - peer-review › Journal article – Annual report year: 2015

Understanding uncertainty propagation in life cycle assessments of waste management systems
Publication: Research - peer-review › Article in proceedings – 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

Assessment of algorithms for mitosis detection in breast cancer histopathology images
Publication: Research - peer-review › Journal article – Annual report year: 2015

A Structured Light Scanner for Hyper Flexible Industrial Automation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

A Unified Approach to Diffusion Direction Sensitive Slice Registration and 3-D DTI Reconstruction From Moving Fetal Brain Anatomy
Publication: Research - peer-review › Journal article – Annual report year: 2014

Automated Hippocampal Segmentation using new standardized manual segmentations from the Harmonized Hippocampal Protocol
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2014

Automatic balancing of 3D models
Publication: Research - peer-review › Journal article – Annual report year: 2014

A voxel-based investigation for MRI-only radiotherapy of the brain using ultra short echo times
Publication: Research - peer-review › Journal article – Annual report year: 2014

Body-Part Tracking of Infants
Publication: Research - peer-review › Conference article – Annual report year: 2014

Broadband optical characterization of material properties
Publication: Research › Ph.D. thesis – Annual report year: 2014

Calibrated image-derived input functions for the determination of the metabolic uptake rate of glucose with [18F]-FDG PET
Publication: Research - peer-review › Journal article – Annual report year: 2014

Can We Find Organic Materials in Food Using X-rays?
Emerson, M. J., Einarsdottir, H., Clemmensen, L. K. H. & Ersbøll, B. K. 2014
Publication: Research - peer-review › Poster – 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

Characterization of graphite nodules in thick-walled ductile cast iron
Publication: Research - peer-review › Conference article – Annual report year: 2014

Chemical imaging and solid state analysis at compact surfaces using UV imaging
Publication: Research - peer-review › Journal article – Annual report year: 2015

Combined shape and topology optimization for minimization of von Mises Stress
Christiansen, A. N., Tortorelli, D. A., Aage, N. & Sigmund, O. 2014
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2014

Commentary to 'Application of calibrated image-derived input function to a clinical protocol'.
Christensen, A. N. 2014 In : Nuclear Medicine Communications. 35, 11, p. 1189-1190
Publication: Research - peer-review › Comment/debate – Annual report year: 2014

CUDArray: CUDA-based NumPy
Publication: Research › Report – Annual report year: 2014

Dictionary Snakes
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Directional Dipole Model for Subsurface Scattering
Publication: Research - peer-review › Journal article – Annual report year: 2014

DLP technology application: 3D head tracking and motion correction in medical brain imaging
Publication: Research - peer-review › Conference article – Annual report year: 2014

Erratum to: Interesting Interest Points
Publication: Research › Comment/debate – Annual report year: 2014

Evaluation of the ID220 single photon avalanche diode for extended spectral range of photon time-of-flight spectroscopy
Publication: Research › Report – Annual report year: 2014
Genus zero graph segmentation: Estimation of intracranial volume
Publication: Research - peer-review › Journal article – Annual report year: 2014

HEp-2 Cell Classification Using Shape Index Histograms With Donut-Shaped Spatial Pooling
Publication: Research - peer-review › Journal article – Annual report year: 2014

Hyperspectral imaging based on diffused laser light for prediction of astaxanthin coating concentration
Publication: Research - peer-review › Journal article – Annual report year: 2013

Improved resolution and reliability in dynamic PET using Bayesian regularization of MRTM2
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

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
Publication: Research - peer-review › Poster – Annual report year: 2014

Interactive Shape Modeling using a Skeleton-Mesh Co-Representation
Publication: Research - peer-review › Journal article – Annual report year: 2014

Interpretation of appearance: the effect of facial features on first impressions and personality.
Publication: Research - peer-review › Journal article – Annual report year: 2014

Large Scale Multi-view Stereopsis Evaluation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Markerless motion capture can provide reliable 3D gait kinematics in the sagittal and frontal plane
Publication: Research - peer-review › Journal article – Annual report year: 2014
Model-Based Motion Tracking of Infants

Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Multiphase Image Segmentation Using the Deformable Simplicial Complex Method

Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

N3 Bias Field Correction Explained as a Bayesian Modeling Method

Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Novel X-ray phase-contrast tomography method for quantitative studies of heat induced structural changes in meat

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

On the Benefits of Stereo Graphics in Virtual Obstacle Avoidance Tasks

Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Patient-Specific Simulation of Implant Placement and Function for Cochlear Implantation Surgery Planning

Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Pattern recognition approach to quantify the atomic structure of graphene

Publication: Research - peer-review › Letter – Annual report year: 2014

PET and PET/CT Physics
Christensen, A. N. 2014 PET/CT Atlas on Quality Control and Image Artefacts. International Atomic Energy Agency, Ch. 2, p. 10-27 (IAEA Human Health Series; No. 27).

Publication: Research › Book chapter – Annual report year: 2015

Photon Differential Splatting for Rendering Caustics

Publication: Research - peer-review › Journal article – Annual report year: 2014
Potential of multispectral imaging technology for rapid and non-destructive determination of the microbiological quality of beef fillets during aerobic storage
Publication: Research - peer-review › Journal article – Annual report year: 2014

Quantification Tools for Analyzing Tomograms of Energy Materials
Emerson, M. J. 2014
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2014

Quantification Tools for Analyzing Tomograms of Energy Materials
Publication: Research - peer-review › Poster – Annual report year: 2014

Rapid Generation of Personalized HRTFs
Huttunen, T., Vanne, A., Harder, S., Paulsen, R. R., King, S., Perry-Smith, L. & Kärkkäinen, L. 2014
Publication: Research - peer-review › Journal article – Annual report year: 2014

Secondary Progressive and Relapsing Remitting Multiple Sclerosis Leads to Motor-Related Decreased Anatomical Connectivity
Publication: Research - peer-review › Journal article – Annual report year: 2014

Segmentation of Connective Tissue in Meat from Microtomography Using a Grating Interferometer
Einarsdottir, H., Ersbøll, B. K. & Larsen, R. 2014
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2014

Segmentation Toolbox for Tomographic Image Data
Einarsdottir, H. 2014
Publication: Research › Poster – Annual report year: 2014

Shape modelling of the inner ear from micro-CT data
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

SLStudio: Open-source framework for real-time structured light
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Status for NEXIM New X-ray Imaging Modalities for safe and high quality food
Publication: Research - peer-review › Report chapter – Annual report year: 2014

Structure Identification in High-Resolution Transmission Electron Microscopic Images: An Example on Graphene
Publication: Research - peer-review › Journal article – Annual report year: 2015

Surface Detection using Round Cut
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014
Analysis of the Indented Cylinder by the use of Computer Vision
Publication: Research › Ph.D. thesis – Annual report year: 2014

An explorative study on pork loin recognition
Publication: Research › peer-review › Article in proceedings – Annual report year: 2013

An Improved Optimization Method for the Relevance Voxel Machine
Publication: Research › peer-review › Article in proceedings – Annual report year: 2013

Apparatus and method for motion tracking in brain imaging

Application of X-ray phase-contrast tomography in quantitative studies of heat induced structural changes in meat
Publication: Research › peer-review › Article in proceedings – Annual report year: 2013

A Probabilistic, Non-parametric Framework for Inter-modality Label Fusion
Publication: Research › peer-review › Article in proceedings – Annual report year: 2013

A three dimensional children head database for acoustical research and development
Publication: Research › peer-review › Conference article – Annual report year: 2013

A unified framework for cross-modality multi-atlas segmentation of brain MRI
Eugenio Iglesias, J., Rory Sabuncu, M. & Van Leemput, K. 2013 In : Medical Image Analysis. 17, 8, p. 1181-1191
Publication: Research › peer-review › Conference article – Annual report year: 2013

Automated Image-Based Procedures for Adaptive Radiotherapy
Publication: Research › Ph.D. thesis – Annual report year: 2013

Automated Structure Detection in HRTEM Images: An Example with Graphene

Broadband photon time of flight spectroscopy: advanced spectroscopic analysis for ensuring safety and performance of pharmaceutical tablets
Publication: Research › peer-review › Article in proceedings – Annual report year: 2013

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
Challenges in 3D scanning: Focusing on Ears and Multiple View Stereopsis
Publication: Research › Ph.D. thesis – Annual report year: 2013

Contextual Multivariate Segmentation of Pork Tissue from Grating-Based Multimodal X-Ray Tomography
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Correlation of iris biometrics and DNA
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

DCT-Based Characterization of Milk Products Using Diffuse Reflectance Images
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Decomposition of Diffuse Reflectance Images - Features for Monitoring Structure in Turbid Media
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Determination of magnetic resonance imaging biomarkers for multiple sclerosis treatment effects
Publication: Research › Ph.D. thesis – Annual report year: 2013

Differences in Radiotherapy Delivery and Outcome Due to Contouring Variation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Differential effects of aerobic exercise on insulin-stimulated glucose uptake in skeletal muscle and adipose tissue examined with PET/CT
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2014

Dynamically constrained pipeline for tracking neural progenitor cells
Publication: Research - peer-review › Conference article – Annual report year: 2013

Effect of fat type and heat treatment on the microstructure of meat emulsions
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Facial Analysis: Looking at Biometric Recognition and Genome-Wide Association
Fast and Practical Head Tracking in Brain Imaging with Time-of-Flight Camera

Fast, Sequence Adaptive Parcellation of Brain MR Using Parametric Models

Genetic analyses of the human eye colours using a novel objective method for eye colour classification

Genus Zero Graph Segmentation: Estimation of Intracranial Volume

Improved inference in Bayesian segmentation using Monte Carlo sampling: Application to hippocampal subfield volumetry
Iglesias, J. E., Sabuncu, M. R. & Van Leemput, K. 2013 In : Medical Image Analysis. 17, 7, p. 766-778

Is Synthesizing MRI Contrast Useful for Inter-modality Analysis?

List-Mode PET Motion Correction Using Markerless Head Tracking: Proof-of-Concept With Scans of Human Subject

Modeling of Craniofacial Anatomy, Variation, and Growth
On Feature Relevance in Image-Based Prediction Models: An Empirical Study

Online Multi-Spectral Meat Inspection

Pond of Illusion: Interacting through Mixed Reality

PorkCAD: Case study of the design of a pork product prototyper

Predicting the location of human perirhinal cortex, Brodmann's area 35, from MRI

Quantification of Tissue Trauma following Insulin Pen Needle Insertions in Skin

Quantitative Analysis of Micro-Structure in Meat Emulsions from Grating-Based Multimodal X-Ray Tomography

Strength training and testosterone treatment have opposing effects on migration inhibitor factor levels in ageing men

Structured Light-Based Motion Tracking in the Limited View of an MR Head Coil

The genetics of eye colours in an Italian population measured with an objective method for eye colour quantification
The Improved Relevance Voxel Machine

Three-dimensional MRI-linac intra-fraction guidance using multiple orthogonal cine-MRI planes

Topology Optimization using an Explicit Interface Representation
Christiansen, A. N., Nobel-Jørgensen, M., Bærentzen, J. A., Aage, N. & Sigmund, O. 2013

Tract-oriented statistical group comparison of diffusion in sheet-like white matter

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

Using Multispectral Imaging for Spoilage Detection of Pork Meat
Dissing, B. S., Papadopoulou, O. S., Tassou, C., Erbsbøll, B. K., Carstensen, J. M., Z. Panagou, E. & Nychas, G-J. 2013 In : Food and Bioprocess Technology. 6, 9, p. 2268-2279

Using X-ray imaging to study thermal-induced changes in food
Nielsen, M. S., Miklos, R., Lametsch, R., Einarsdottir, H. & Feidenhans'l, R. 2013

Utilization of Multispectral Images for Meat Color Measurements

What Genes Tell about Iris Appearance

Workshop on Farm Animal and Food Quality Imaging 2013: Espoo, Finland, June 17, 2013, Proceedings

Imaging Food Quality
Joint Modelling of Structural and Functional Brain Networks
Publication: Research - peer-review › Paper – Annual report year: 2012

3D Surface Scanner Using Structured Light & Industrial Robot
Publication: Research - peer-review › Poster – Annual report year: 2011