Research outputs:

**The European Climate Research Alliance (ECRA): Collaboration from bottom-up**
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

**Lad vand og data strømme**
Research output: Book/Report › Report – Annual report year: 2019 › Commissioned › peer-review

**Water use in electricity generation for water-energy nexus analyses: The European case**
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

**Simulation of flood hazard and risk in the Danube basin with the Future Danube Model**
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

**Comparison of the impacts of urban development and climate change on exposing European cities to pluvial flooding**
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

**Infrastructure Systems in a Sustainable City**
Research output: Book/Report › Report – Annual report year: 2017 › Research › peer-review

**New vigour involving statisticians to overcome ensemble fatigue**
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

**Sea level adaptation decisions under uncertainty**
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

**Simulation of Optimal Decision-Making Under the Impacts of Climate Change**
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

**Assessing the influence of groundwater and land surface scheme in the modelling of land surface-atmosphere feedbacks over the FIFE area in Kansas, USA**
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review
Climate change impacts on groundwater hydrology – where are the main uncertainties and can they be reduced?
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Local control on precipitation in a fully coupled climate-hydrology model
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Methodologies for managing the Energy-Water-Food nexus at different scales
Research output: Chapter in Book/Report/Conference proceeding › Report chapter – Annual report year: 2016 › Commissioned › peer-review

Socio-economic Impacts—Offshore Activities/Energy
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2017 › Research › peer-review

Water consumption in the energy sector
Research output: Chapter in Book/Report/Conference proceeding › Report chapter – Annual report year: 2016 › Research › peer-review

A source term estimation method for a nuclear accident using atmospheric dispersion models
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Improved Regional Climate Model Simulation of Precipitation by a Dynamical Coupling to a Hydrology Model
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2015 › Research › peer-review

Influence of urban land cover changes and climate change for the exposure of cities to flooding during high-intensity precipitation
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Influence of urban land cover changes and climate change for the exposure of European cities to flooding during extreme precipitation
Research output: Contribution to conference › Poster – Annual report year: 2015 › Research

Influence of urban land cover changes and climate change for the exposure of European cities to flooding during extreme precipitation
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2015 › Research › peer-review

Influence of urban land cover changes and climate change for the exposure of European cities to flooding during high-intensity precipitation
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Influence of urban land cover changes for the exposure of European cities to flooding during high-intensity rainfall events
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2015 › Research › peer-review

Key drivers and economic consequences of high-end climate scenarios: uncertainties and risks
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Regional modelling of the Earth System: a summary of recent work
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2015 › Research › peer-review
Scalability of regional climate change in Europe for high-end scenarios
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Simple future weather files for estimating heating and cooling demand
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Using Landsat Vegetation Indices to Estimate Impervious Surface Fractions for European Cities
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

A framework for testing the ability of models to project climate change and its impacts
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

A model validation framework for climate change projection and impact assessment
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2014 › Research › peer-review

Coupled regional climate and hydrology modelling at the catchment scale
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2014 › Research › peer-review

Embedding complex hydrology in the regional climate system – Dynamic coupling across different modelling domains
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Europe in a 6 degrees warmer climate
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2014 › Research › peer-review

Integrated Climate and Hydrology Modelling - Catchment Scale Coupling of the HIRHAM Regional Climate Model and the MIKE SHE Hydrological Model: Extended abstract
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2014 › Research › peer-review

Remote sensing estimates of impervious surfaces for hydrological modelling of changes in flood risk during high-intensity rainfall events
Research output: Contribution to conference › Poster – Annual report year: 2015 › Research

Remote sensing estimates of impervious surfaces for hydrological modelling of changes in flood risk during high-intensity rainfall events
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2015 › Research › peer-review

Remote sensing estimates of impervious surfaces for pluvial flood modelling
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2015 › Research › peer-review

Results from a full coupling of the HIRHAM regional climate model and the MIKE SHE hydrological model for a Danish catchment
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Satellite estimates of urban development for hydrological modelling
Research output: Contribution to conference › Poster – Annual report year: 2015 › Research

The application of a dynamic OpenMI coupling between a regional climate model and a distributed surface water-groundwater model
Source term assessment from off-site gamma radiation measurements
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research › peer-review

The HIRHAM Regional Climate Model. Version 5 (beta)
Research output: Book/Report › Report – Annual report year: 2007 › Research

Analysis of a Kalman filter based method for on-line estimation of atmospheric dispersion parameters using radiation monitoring data
Research output: Contribution to journal › Journal article – Annual report year: 2005 › Research › peer-review

Data assimilation on atmospheric dispersion of radioactive materials

Extended Kalman filter analysis of short-range atmospheric dispersion of radionuclides
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2005 › Research

New small angle X-ray scattering facility at Risø National Laboratory
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2005 › Research

Source term estimation from off-site radiation monitoring data
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2005 › Research

Structural order of self-assembled liquid crystalline solution processable semiconductors (poster)
Research output: Contribution to conference › Poster – Annual report year: 2005 › Research

WAXS simulations
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2005 › Research

An introduction to data assimilation modelling using an extended Kalman filter on an atmospheric release of radioactive material
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2004 › Research

Experimental evaluation of gamma fluence-rate predictions from Argon-41 releases to the atmosphere over a nuclear research reactor site
Research output: Contribution to journal › Journal article – Annual report year: 2004 › Research › peer-review

Kalman filtration of radiation monitoring data from atmospheric dispersion of radioactive materials
Research output: Contribution to journal › Journal article – Annual report year: 2004 › Research › peer-review

State space model analysis of a radionuclide atmospheric dispersion experiment
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2004 › Research

Atmospheric dispersion of argon-41 from a nuclear research reactor: measurement and modeling of plume geometry and gamma radiation field
Research output: Contribution to journal › Journal article – Annual report year: 2003 › Research › peer-review
Atmospheric dispersion of argon-41 from a nuclear research reactor: Measurement and modelling of plume geometry and gamma radiation field
Research output: Contribution to journal › Journal article – Annual report year: 2004 › Research › peer-review

Gaussian plume model analysis of atmospheric dispersion measurements of radioactive releases from the BR1 research reactor in Mol, Belgium
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2003 › Research

Measurements of plume geometry and argon-41 radiation field at the BR1 reactor in Mol, Belgium
Research output: Book/Report › Report – Annual report year: 2002 › Research

Projects:

Extreme Storm Surges and Climate Risk Assessment
Project: PhD

Future Danube: Multi-hazard and Risk Model
Project: Research

Climate Resilience Labelling
Project: Research

RECREATE
Project: Research

Horizon 2020 Insurance
Project: Research

Kan man forbedre 'værdien' af et klimamodel-ensemble ved hjælp af statistik?
Project: Research

Coastal Hazard Risk Reduction and Management
Project: Research

Coastal flooding hazards due to storm surges and subsidence
Project: PhD

Data assimilation in atmospheric dispersion of radioactive material
Project: PhD

City Development, Urban Systems and the Impacts of Climate Extremes
Project: PhD

Improved representation of renewable energy sources in integrated assessment modelling of energy and climate change policies
Project: PhD

OASIS+ / Open access catastrophe modelling driving adaptation to enable resilience in an uncertain future
Project: Research
HYdrological Modelling for Assessing Climate Change Impacts at differeNT Scales
Project: Research

Role of technologies in an Energy Efficient Economy – Model-based analysis of policy measures and transformation pathways to a sustainable energy system
Project: Research

Activities:

How European projections have changed through 20 years of multi-model ensemble projects
Activity: Talks and presentations › Conference presentations

Effects of periodic forcing anomalies on storm surge prediction in the North Sea-Baltic Sea transition zone
Activity: Talks and presentations › Conference presentations

Benchmarking seasonal prediction of inflows to hydropower systems against a statistical approach
Activity: Talks and presentations › Conference presentations

Projections of the future European water use in electricity generation and related vulnerabilities
Activity: Talks and presentations › Conference presentations

Dynamic modelling of coastal flooding hazard risk management
Activity: Talks and presentations › Conference presentations

Improved storm surge prediction: Event based comparison of atmospheric forcing data in the North Sea – Baltic Sea transition area
Activity: Talks and presentations › Conference presentations

The potential to reduce uncertainties in probabilistic storm surge impact assessments
Activity: Talks and presentations › Conference presentations

From PRUDENCE and ENSEMBLES to CORDEX - What’s the difference?
Activity: Talks and presentations › Conference presentations

Enhanced Confidence in Regional Climate Projections from Dynamical Downscaling
Activity: Talks and presentations › Conference presentations

Do we know more about climate change than during PRUDENCE?
Activity: Talks and presentations › Conference presentations

Regional Climate Change for Europe; From PRUDENCE and ENSEMBLES to CORDEX – a consistent story
Activity: Talks and presentations › Conference presentations

Challenges of Data Availability for Analysing the Water-Energy Nexus
Activity: Talks and presentations › Conference presentations

Consistency and Main Differences Between European Regional Climate Downscaling Intercomparison Results: From PRUDENCE and ENSEMBLES to CORDEX
Activity: Talks and presentations › Conference presentations

Challenges of Data Availability for Analysing the Water-Energy Nexus
Activity: Talks and presentations › Conference presentations