The Remote Sensing & Terrestrial Ecology group of KU Leuven is opening a vacancy for a postdoc position on quantifying vegetation dynamics using satellite remote sensing time series

We are looking for a senior scientist to perform research and take up project coordination tasks within a project portfolio on monitoring vegetation dynamics using satellite observation time series. More specifically you will be the leading KU Leuven researcher in a project on resilience mechanisms for risk adapted forest management under climate change (https://www.reforce-project.eu/). In this ongoing project you will be responsible for developing methods to derive forest stability (resilience, resistance) proxies with respect to drought events and other disturbances from remote sensing time series (MODIS, Landsat, Sentinel) at a European scale and to validate these using field observations (e.g. using tree ring or defoliation data).

Further you will have the opportunity to actively contribute to the following projects: understanding turning points in dryland ecosystem functioning (https://www.researchgate.net/project/Understanding-Turning-Points-in-Dryland-Ecosystem-Functioning-U-TURN), analysis of land degradation processes in Ecuador and South Africa, evaluate the effects of tree species diversity on forest productivity and stability in European forests.

This postdoc position provides you the opportunity to expand your international network and work together with internationally renowned remote sensing time series analysis experts, ecosystem modelers and ecologists. Further you will have the opportunity to expand your academic CV by teaching, supervising B.Sc., M.Sc. and PhD students meanwhile having the opportunity to publish your own scientific findings. Finally you will get the opportunity to take a leading role in coordinating and expanding the research on ecosystem dynamics monitoring and modeling at the KU Leuven Remote Sensing & Terrestrial Ecology group.

Context of the position:
The successful candidate will work at the Remote Sensing & Terrestrial Ecology group, as part of the Division Forest, Nature and Landscape at the Department Earth & Environmental Sciences of KU Leuven (head Prof. Ben Somers; http://ees.kuleuven.be/fnl/research/index.html). He/she has a proven track record in remote sensing time series analysis. A background in ecology, vegetation science or earth and environmental sciences is an added value.
Tasks

Your tasks are:

- to coordinate and perform remote sensing analysis tasks set-out in the REFORCE project (i.e. developing methods to derive forest stability (resilience, resistance) proxies from remote sensing time series (MODIS, Landsat, Sentinel) and link these to drought events and other disturbances; [https://www.reforce-project.eu/](https://www.reforce-project.eu/))

- closely collaborate with project partners

- assist in a limited amount of teaching activities (related to remote sensing, GIS, landscape & urban ecology)

- advise PhD and M.Sc. students

- publish your scientific results in peer-reviewed international journals

- communicate project results to project partners and relevant stakeholders and on scientific conferences, through presentations, reports and articles

- assist in coordinating and expanding the research on remote sensing time series analysis within the division

- transfer your expertise in time series analysis to the rest of the research team

Profile

- You hold a PhD degree (or equivalent relevant experience) in bioscience or civil engineering, environmental sciences, geography, earth observation/remote sensing, geomatics, biology or closely related field.

- You have experience and proven expertise in remote sensing data management and data processing and related software packages

- You have experience and proven expertise in time series analysis

- You have a good publication record relative to your career stage

- You are responsible, can work both independently and in a team, show initiative and seize opportunities

- You hold leadership skills (e.g. project coordination/management and networking)

- You have good written and oral communication skills in English

- You get things done
Offer
You start with a 1-year contract, renewable after positive evaluation for another year. We offer a very competitive salary with various additional benefits (in terms of holidays, health insurance, transport costs), excellent research facilities, and conference and travel budget. The start date is negotiable but not later than October 2019.

Description of the Research Units
KU Leuven is a university research and education institution with an international character. The KU Leuven-University of Leuven is a research oriented institution and is consistently ranked among the top research universities in Europe. Leuven is one of the oldest university towns in Europe, about 30 km from Brussels. It has a rich history, culture and night life, and a unique friendly atmosphere.

The KU Leuven Department of Earth and Environmental Sciences has the mission to carry out state-of-the-art scientific research with respect to the functioning of geo- and ecosystems at different spatial and temporal scales, including the interaction between humans and the environment and the sustainable management of natural resources.

The Forest, Nature and Landscape division at KU Leuven has a proven track record in research with respect to the sustainable management of natural resources and functioning of natural and manmade ecosystems at different spatial and temporal scales. The group works on natural habitats, forests, agricultural land and urban green and their ecosystem services, as well as on the development of methodological tools needed to analyze and quantify science in these fields, such as Geographic Information Systems (GIS), Decision Support Systems (DSS), multi-criteria analysis, Life Cycle Assessment (LCA) and remote sensing.

The Remote Sensing & Terrestrial Ecology group (headed by Prof. Ben Somers) is one of the four research teams within the Forest, Nature and Landscape division of KU Leuven. The team focusses on studying the role, vitality and stability of plant species and their communities in (sub)urban and (semi-)natural environments. The most recent developments in remote sensing technology are exploited to quantify vegetation structure and functioning at various temporal and spatial scales. Through integration of remote sensing, GIS and in situ observations in spatial explicit modeling routines we explore how, and to what extent, different plant species and/or plant assemblages contribute to ecosystem services. Central in our approach is the concept of “nature-based solutions” which refers to the use of nature in tackling today’s environmental challenges such as climate change, environmental pollution, food security, water resources management, natural disaster risk management, etc.
For further information please contact
Prof. Ben Somers
Remote Sensing & Terrestrial Ecology
Division Forest, Nature & Landscape, KU Leuven
Celestijnenlaan 200e - bus 2411
B-3001 Leuven
tel. +32 16 37 91 01
Email: ben.somers@kuleuven.be

Application procedure

Please send a motivation letter and curriculum vitae to Ben Somers before 15/06/2019.