



National
Research
Foundation



Complex
Systems in
Transition



UNIVERSITEIT
STELLENBOSCH
UNIVERSITY

SARChI Research Chair in Social-Ecological Systems and Resilience

Hosted by the Centre for Complex Systems in Transition at Stellenbosch University

Call for applications: Postdoctoral fellowship on Social-Ecological Regime Shifts

Deadline for applications: 30 July 2016

We live in a new planetary era – the Anthropocene - where human activities have become a major driver of ecosystem dynamics at local to global scales. There is growing evidence that anthropogenic impacts are increasing the risk of transgressing tipping points that could trigger catastrophic environmental regime shifts, such as the collapse of an important fishery or the Greenland ice sheet. Such regime shifts threaten the supply of essential ecosystem services on which human societies depend - including provisioning (e.g. crops), regulating (e.g. flood regulation), and cultural (e.g. recreation) services - and can have major impacts on human economies, security and health. Better understanding the potential risks and consequences of regime shifts has been identified as one of five grand challenges for Earth system and sustainability science, and an urgent priority in informing policies to advance sustainable development and building resilience to unexpected changes.

The South African Research Chair (SARChI) in Social-Ecological Systems and Resilience, held by Prof Reinette (Oonsie) Biggs aims to contribute theory, methods and understanding that can help address this grand challenge by improving our capacity to assess risks and build resilience to high-impact regime shifts that may jeopardize ecosystem services and human well-being. This thematic area of work under the Chair builds on the Regime Shifts Database initiative (www.regimeshifts.org) that is being conducted in collaboration with the Stockholm Resilience Centre in Sweden, and has provided a platform for several student projects and internships. The core goals of the initiative are to provide a global synthesis of regime shifts that have occurred in different social-ecological systems, their drivers and consequences for ecosystem services and human well-being, and identify potential strategies for building resilience to undesirable shifts or encouraging transformations to more desirable regimes.

The Chair and associated students and fellows are hosted by the new flagship initiative for 'Complex Systems in Transition' (CST) at Stellenbosch University, hosted within the School for Public Leadership in the Faculty of Economic and Management Sciences. The CST builds on a strong history of transdisciplinary research and complexity studies, and hosts several leading scientists and students from diverse disciplinary backgrounds, providing a vibrant hub for solution-oriented, transdisciplinary, sustainability science. The Chair and CST are also partners in an exciting new collaborative research program, *Guidance for Resilience in the Anthropocene: Investments for Development (GRAID)*, involving Dr Rika Preiser and Dr Laura Pereira from CST, together with the CSIR and the Stockholm Resilience Centre in Sweden. The primary objective of these initiatives are to provide transformational knowledge on the dynamics of multi-scale social-ecological change, and strategic insights into the new modes of research and governance that can bring about a just transition to a more equitable and sustainable society, in southern Africa and globally.

Call for applications

We seek a motivated postdoctoral fellow with a keen interest in sustainability issues, an interest and ability to integrate across the social and natural sciences, and who enjoys collaboration and is interested to participate in the events and activities of the CST. Interested individuals should have a strong track-record, be

independent thinkers and doers, and be interested in developing a career around topics such as complexity thinking, social-ecological systems, resilience, and sustainability transformations.

The postdoctoral fellow will be responsible for helping coordinate the Regime Shifts Database initiative, and specifically help to expand and analyze the set of regime shift examples that are of relevance to development and sustainability in Southern Africa. The exact focus of the set of regime shifts to be collated and analyzed will be agreed upon depending on the applicant's interest and expertise, but would ideally include a focus on one or more of the following: regime shifts in drylands, poverty-related traps and regime shifts, transformations in ecosystem management. The fellowship will most likely entail the organization of one or more expert workshops to collect information on different regime shifts. Given the close collaboration with the Stockholm Resilience Centre in Sweden, the fellowship will also entail one or more extended visits to Stockholm to work with collaborators based there.

Value

R 220,000 per annum, tax free, with the possibility of additional top-up funding
Plus a minimum of R 50,000 per annum travel allowance

Requirements

Potential postdoctoral candidates should hold a PhD in a relevant field, awarded within the last five years. All candidates should show evidence of strong scholarly performance and commitment to publishing. Applications are particularly invited from South African nationals, especially women and candidates from previously disadvantaged groups.

To apply

Interested candidates should send:

- a motivation letter (detailing your previous experience, your general area of interest, as well as an outline of potential research topics of interest),
- a detailed CV that includes your academic record, previous work experience, any scientific publications on which you have been an author, and the names of at least two academic referees,
- transcripts of academic qualifications,
- at least one example of recent written work (e.g. a paper, report, thesis chapter).

Please submit your applications electronically to: cstenquiries@sun.ac.za

We encourage you to submit your application as soon as possible, but latest by **30 July 2016**.