

# Wageningen University seeks 6 PhD researchers for challenging research on complex adaptive systems

Complex Adaptive System (CAS) theory provides the basis for a scientific approach to integrate social, environmental, and life sciences. CAS means looking at the world as an adaptive system, where the whole is more than the sum of its parts, minor changes can have unexpected effects. The CAS approach requires dedicated modelling efforts and techniques.

CAS is expected to help us better understand the complex world we live in. It should support the exploration and design of long-lasting solutions for the wellbeing of animals, food production, bio-based economy and sustainable use of our limited natural resources. Wageningen UR starts a strategic research programme on CAS. The programme aims to develop the CAS approach and to integrate WUR research domains.

We seek 6 enthusiastic PhD students who will contribute to the development of methods and tools that help us to understand and improve the design of Complex Adaptive Systems. Candidates should share our passion and are able to convey their enthusiasm to a broad range of scientists and students.

## **1 PhD: concepts, methods, and tools for sensitivity analysis and validation of Complex Adaptive Systems**

The candidate should have a background in mathematics and a strong affinity with social and environmental sciences or vice versa. He or she should be a strong conceptual thinker who likes to work together with others.

See: <http://www.academictransfer.com/employer/WUR/vacancy/15817/lang/en/>

## **2 PhDs: Tipping Points and Regime Shifts in Land-Use Systems**

The first candidate should have a background in geography with affinity with computer science/AI or a background in computer science with a strong social-environmental affinity.

See: <http://www.academictransfer.com/employer/WUR/vacancy/15999/lang/en/>

The second candidate should have a background in geography with affinity for social-economic processes or a background in spatial economy with affinity for quantitative spatial processes.

See: <http://www.academictransfer.com/employer/WUR/vacancy/15955/lang/en/>

## **1 PhD: Farmer innovation system: Agent-based modelling of farmers' social and economic decision-making regarding novel farm designs**

The candidate should have a background in agent-based modelling, computer programming experience and a good command of the Dutch language.

See: <http://www.academictransfer.com/employer/WUR/vacancy/15794/lang/en/>

## **1 PhD: Pig behaviour and related sustainability performance in novel farm designs: an agent-based approach**

The candidate should have an appropriate MSc degree in (mathematical or theoretical) biology or animal sciences, with an interest in practical applications. Experience with agent-based modelling is highly preferred.

See: <http://www.academictransfer.com/employer/WUR/vacancy/15793/lang/en/>

## **1 PhD: Designing disease-resistant cropping landscapes in a changing climate using spatial models of epidemics and socio-institutional dynamics**

The candidate should have a keen interest in combining spatially explicit modelling of biophysical processes with socio-institutional dynamics.

See: <http://www.academictransfer.com/employer/WUR/vacancy/16000/lang/en/>



For more information about the programme, Wageningen UR, and its facilities visit: <http://www.wur.nl/UK/> or <http://cas.wur.nl>



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