

24 JAN (THU)
11:00AM - 1:00PM

VENUE : COMPLEXITY INSTITUTE
ACADEMIC BUILDING NORTH
LEVEL 1, SECTION B, UNIT NO. 7
(ABN-01B-07)

COMPLEXITY COMMUNITY
SHARING SESSION

JANUARY 2019

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A Look Into International Research Collaboration Networks

The escalating activity of inter-continental research collaborations has created new dynamisms in various research fields, ranging from earth science to epidemiological studies on population health trends and the spread of infectious diseases. As the search for solutions to global issues such as climate change and sustainable urban development intensify, so does the extent of collaborations across borders; disciplines and sectors.

This talk will cover the analysis of various research trends of key research topics and the collaboration patterns of universities and researchers. The international research collaborations of NTU and the Nanyang Assistant Professors (NAP) as well as National Research Foundation (NRF) Fellows form the basis of the analysis. Results show that funding is a key component to the growth of research collaborations.

Another factor is the participation in a network (based on a topic) during previous position and the subsequent carry on of activity in the new position. This could give rise to the development of a broader level of collaborations involving a research center or institute.

Speaker : Dr. Michael KHOR

Dr. Michael Khor is currently Director of Talent Recruitment And Career Support (TRACS) Office and Bibliometrics Analysis. He is also a Professor at the NTU School of Mechanical & Aerospace Engineering and has published over 300 research articles on thermal sprayed coatings, powder technology, bioceramics and nanomaterials.

Prior to his appointment, he held a number of directorate appointments such as Director of Research; Director, Research Support Office; Director (Projects) at the National Research Foundation (NRF), Prime Minister's Office; Associate Provost (Research), President's Office, NTU and Director of Research Support Office. Michael obtained his PhD degree from Monash University, Australia. He was an Experimental Scientist at CSIRO in Melbourne before joining NTU in 1989.

Dr. Khor has studied extensively the impact of NTU's research outcomes and identifies emerging fields that NTU wishes to develop capabilities in. He has been invited to speak on university research metrics and measurement of performance in recent years at various international forums and conferences.



Land System Science and Socioecological Systems: The Case of Land-Use and Land-Cover Change Processes in Sumatra, Indonesia

Land systems constitute terrestrial components of the Earth system and integrates social, political, economic, and cultural human land-uses with environmental land-covers. This process is dynamic and complex, and invariably employs a range of tools such as remote sensing, social surveys and spatially explicit models of land-use change to investigate the mechanism underlying land-use and land-cover change (LULCC).

I illustrate this kind of research through projects conducted in Sumatra, Indonesia, that are aimed at understanding, predicting and projecting spatially explicit land-use change in a region that is rapidly undergoing deforestation from industrial monoculture expansion. I will elaborate how this land-use change has high consequences for biodiversity, ecosystem services, and public health across spatial scales, and highlight how telecoupling plays an important role in governing this land-use change.

I conclude my talk with suggestions on how complexity science could play a role in investigating these socioecological systems and welcome collaborations from complexity scientists interested in working with us on our research projects.

Speaker : Dr. Janice Ser Huay LEE

Dr. Janice Lee is an Assistant Professor at the Asian School of the Environment (ASE), Nanyang Technological University, Singapore.

She obtained her PhD degree from ETH Zurich, Switzerland, and was a Swiss National Science Foundation mobility postdoc under the Science, Technology and Environmental Policy (STEP) program in Princeton University.

Her research interests include investigating the drivers of pertinent LULCC in the tropics, understanding the effects of environmental change on food security, as well as evaluating management strategies for tropical forest agricultural landscapes.

