

The Chinese University of Hong Kong
Department of Geography and Resource Management
Institute of Future Cities

jointly organize a seminar

by

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Impacts of Future Land Use and Land Cover Change on Mid-21st-Century Surface Ozone Air Quality: Distinguishing between the Biogeophysical and Biogeochemical Effects

Abstract:

Surface ozone (O₃) is an important air pollutant and greenhouse gas. Land use and land cover (LULC) is a critical factor impacting on ozone, on the top of anthropogenic emissions and climate. LULC change can alter regional- to large-scale climate through its biogeophysical effect of albedo and evapotranspiration changes on surface temperature, water cycle and atmospheric circulation changes that can substantially impact ozone over local and remote areas. However, the biogeophysical effect of LULC on ozone is lack of thorough study. This study investigates the biogeophysical effect of LULC on ozone, as well as the biogeochemical and the integrated effect for explicitly examining the critical pathway for how LULC change impacts ozone air pollution. Results reveal that biogeophysical effect of LULC is the important pathway for how LULC change impact ozone over both local and remote regions. Overlooking the impact of biogeophysical effect may cause evident underestimation of LULC change effect on ozone air pollution.

About the Speaker:

Dr. Lang WANG obtained her Ph.D. in 2015 in Department of Environmental Sciences, Macquarie University, Australia. Lang worked as a postdoctoral research fellow in Institute of Environment, Energy and Sustainability, The Chinese University of Hong Kong (CUHK) from the year of 2016 to 2018. Now she is a lecturer in Department of Geography and Resource Management, CUHK. Her research interests cover Atmosphere-land interaction and Earth system modeling, Hydroclimatology and Climate Change, Landscape Pattern and Eco-hydrological processes. She is serving as journal reviewer of "Climatic Change", "International Journal of Climatology", "Land Use Policy", "Catena" and "Scientific Reports".

Language: English
Date: 4 April 2019 (Thursday)
Time: 4:30-6:00pm
Venue: Room 221
Chen Kou Bun Building
Chung Chi College

~All are Welcome~

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