

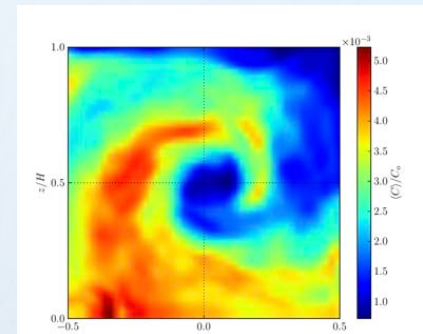
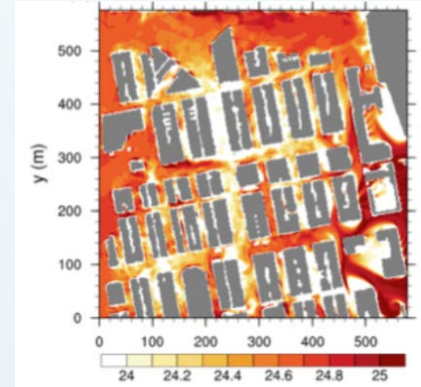
# Mixing and Ventilation in Urban Areas



**Professor Keith Ngan**

*School of Energy and Environment  
City University of Hong Kong*

The spatial distribution of urban pollutants depends on ventilation and mixing. This talk reviews the fluid dynamics of these key processes and describes their quantitative characterisation. Using large-eddy simulation of flow over a single street canyon, it is shown that ventilation is strongly influenced by the mean circulation, while mixing is sensitive to the initial conditions and driven by strain or stretching on short timescales. The applicability of theoretical results for stochastic processes and scalar mixing is considered. Implications for environmental assessment and chemical modelling are discussed.



**23 October 2018**



**3:30 p.m.**



**Conference Room, 3/F,  
Mong Man Wai Building**



Enquires: 3943 9624 [essc@cuhk.edu.hk](mailto:essc@cuhk.edu.hk)