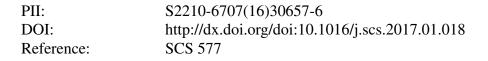
Accepted Manuscript

Title: Regulation of Outdoor Thermal Comfort by Trees in Hong Kong

Author: Ling Kong Kevin Ka-Lun Lau Chao Yuan Yang Chen Yong Xu Chao Ren Edward Ng

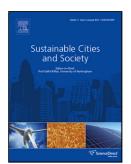


To appear in:

Received date:	23-11-2016
Revised date:	5-1-2017
Accepted date:	7-1-2017

Please cite this article as: Kong, L., Lau, K. K.-L., Yuan, C., Chen, Y., Xu, Y., Ren, C., and Ng, E., Regulation of Outdoor Thermal Comfort by Trees in Hong Kong, *Sustainable Cities and Society* (2017), http://dx.doi.org/10.1016/j.scs.2017.01.018

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



ACCEPTED MANUSCRIPT

1	Regulation of Outdoor Thermal Comfort by Trees in Hong Kong
2	
3 4	Ling Kong ^a *, Kevin Ka-Lun Lau ^a , Chao Yuan ^d , Yang Chen ^a , Yong Xu ^c , Chao Ren ^{a,b} , Edward Ng ^{a,b,c}
5	
6	^a School of Architecture, The Chinese University of Hong Kong, Hong Kong, China
7 8	^b The Institute of Environment, Energy and Sustainability, The Chinese University of Hong Kong, Hong Kong, China
9	^c The Institute of Future Cities, The Chinese University of Hong Kong, Hong Kong, China
10 11	^d Department of Architecture, School of Design and Environment, National University of Singapore, Singapore
12	
13	
14	
15	*Corresponding author
16	School of Architecture, The Chinese University of Hong Kong, Shatin, N.T. Hong Kong, China
17	Tel.: +852 3943 6518
18	Fax: +852 3942 0982
19	Email: kongling@cuhk.edu.hk,kongling927@yahoo.com
20	
21	
22	
23	Highlights
24	1. Trees planted in high density urban contexts are more effective in improving thermal comfort
25	than those in open spaces.
26	2. Urban trees with a large crown, short trunk and dense canopy are more effective in reducing
27	average daytime T_{mrt} at pedestrian level during summer sunny day, with values up to 5.1 °C in
28	open space.
29	3. Five specific ways are proposed to facilitate the integration of tree planting into urban design.
30	

Download English Version:

https://daneshyari.com/en/article/4928048

Download Persian Version:

https://daneshyari.com/article/4928048

Daneshyari.com