

Climate change in Moscow in different building-up scenarios (simulation with simple urban canopy model)



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Structure of developed model complex.

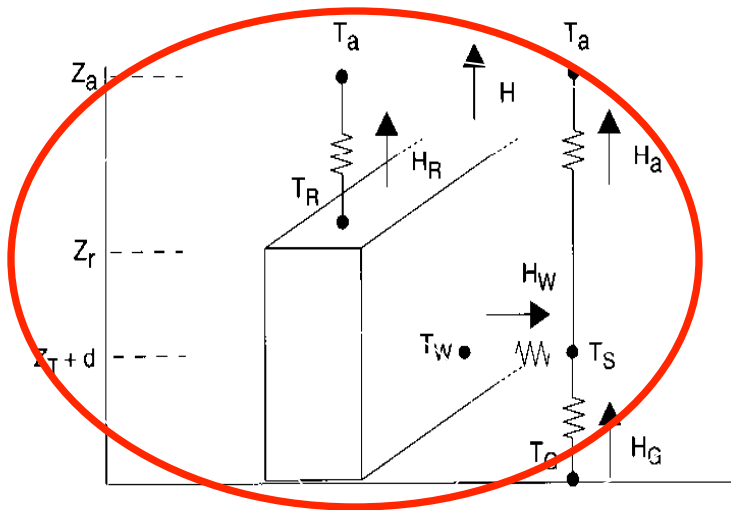
Global Circulation model



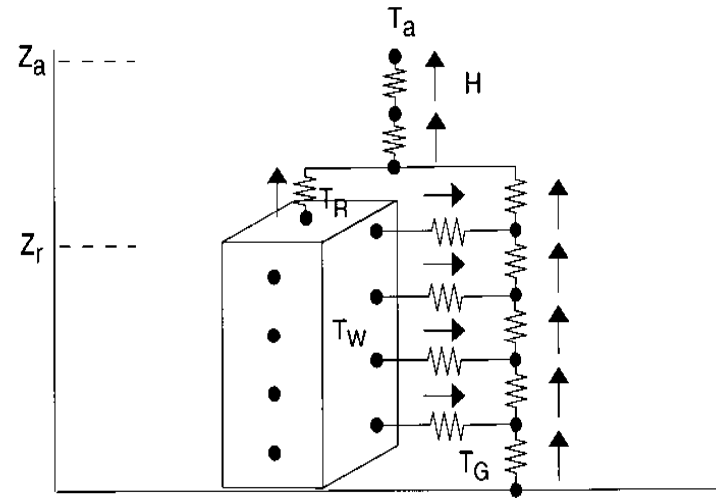
Urban canopy model



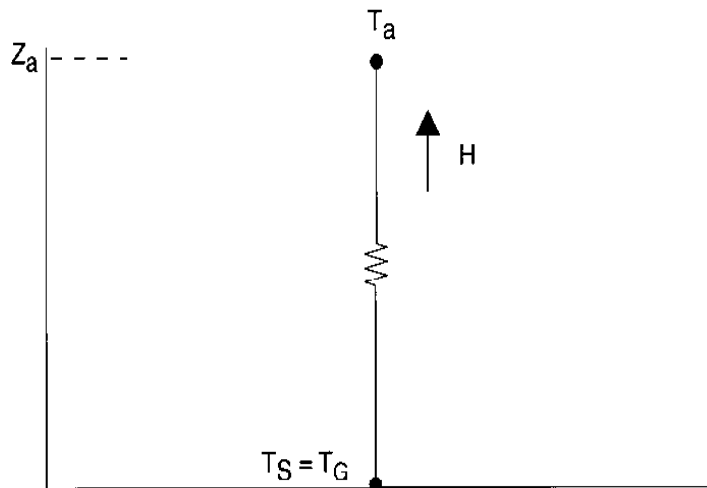
(a) Single-Layer Urban Canopy Model
(Proposed Model)



(b) Multi-Layer Urban Canopy Model
(NIRE-CM)

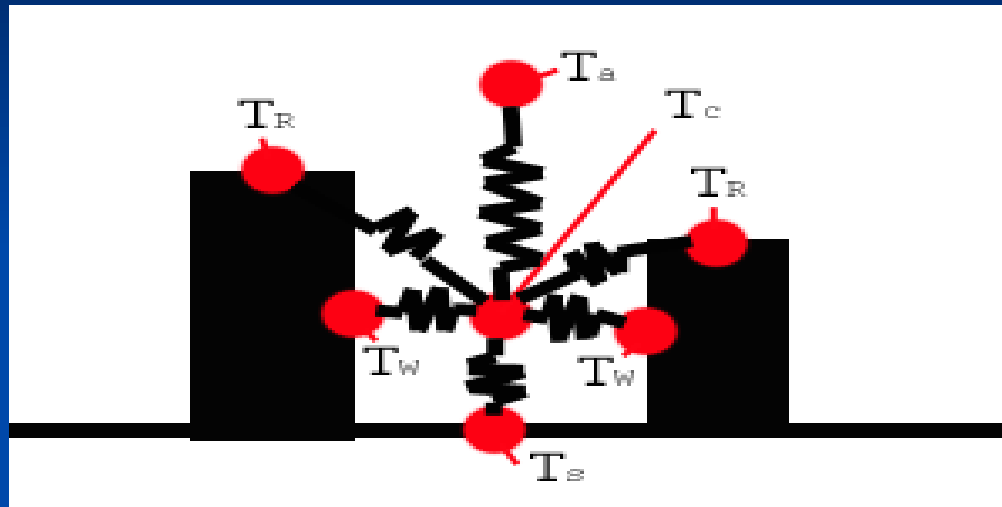


(c) Slab Model
(Surface-Layer Scheme)

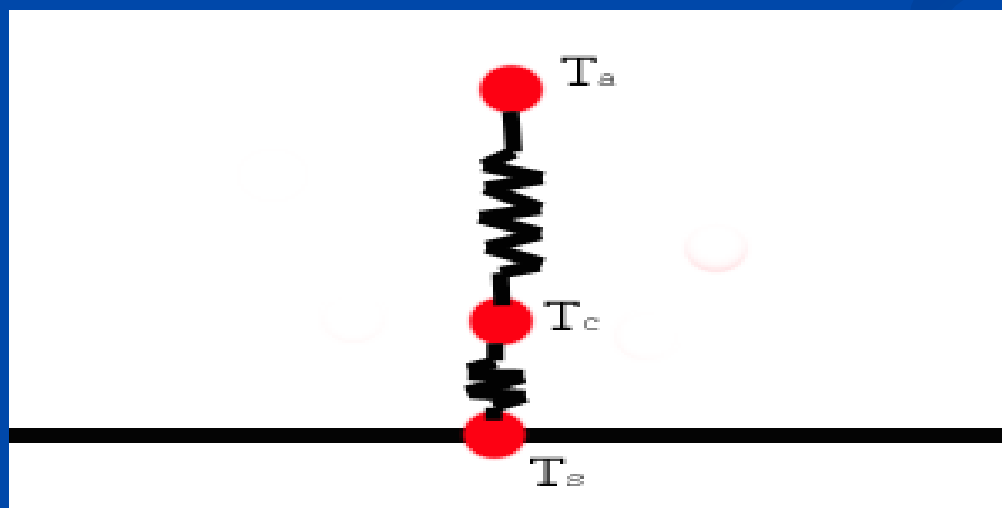


Picture is taken from [Kusaka et al., 2001]

Energy fluxes and temperatures in canyon type cells and non-canyon type cells



Canyon type cells
(2 types)



Non-canyon type
cells (4 types):
Park
Water (river)
Industrial zone
Asphalt

STRUCTURE OF NUMERICAL EXPERIMENTS WITH A CLIMATE OF THE FUTURE (2500 AND 2100)

Results of the international project CMIP3

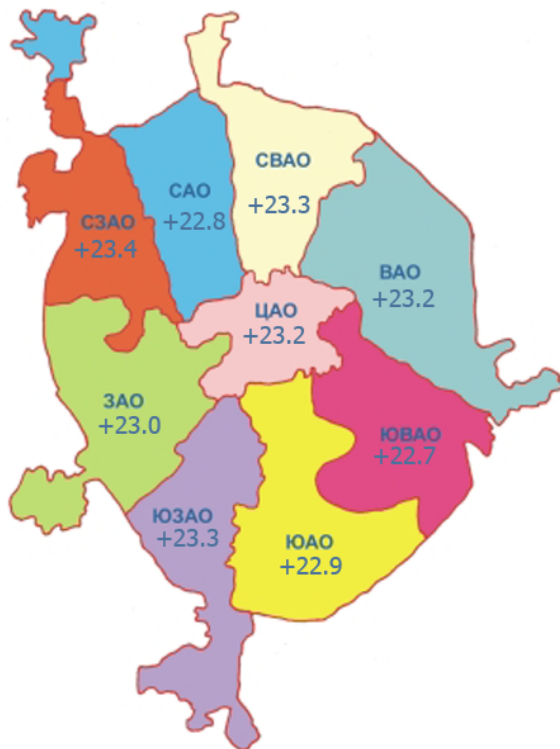
Global Circulation model

Microclimatic model

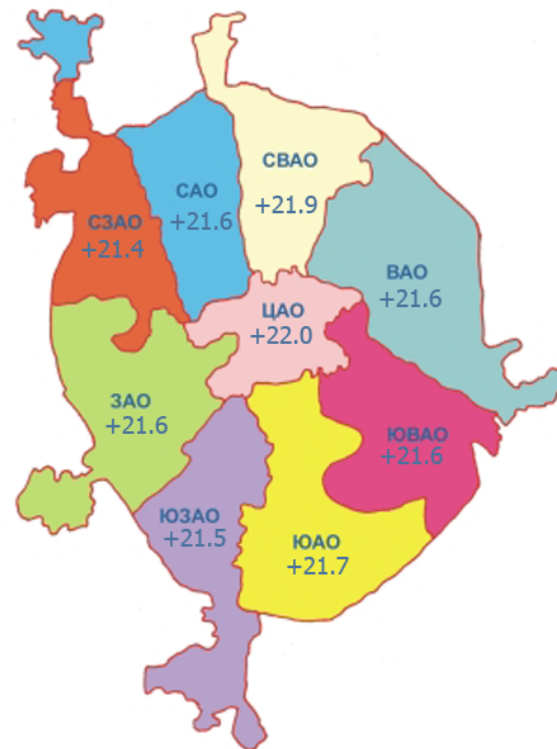


Results

Середина XXI века
(средняя температура июля)



Середина XXI века
(средняя температура июля)



Thank you for attention!