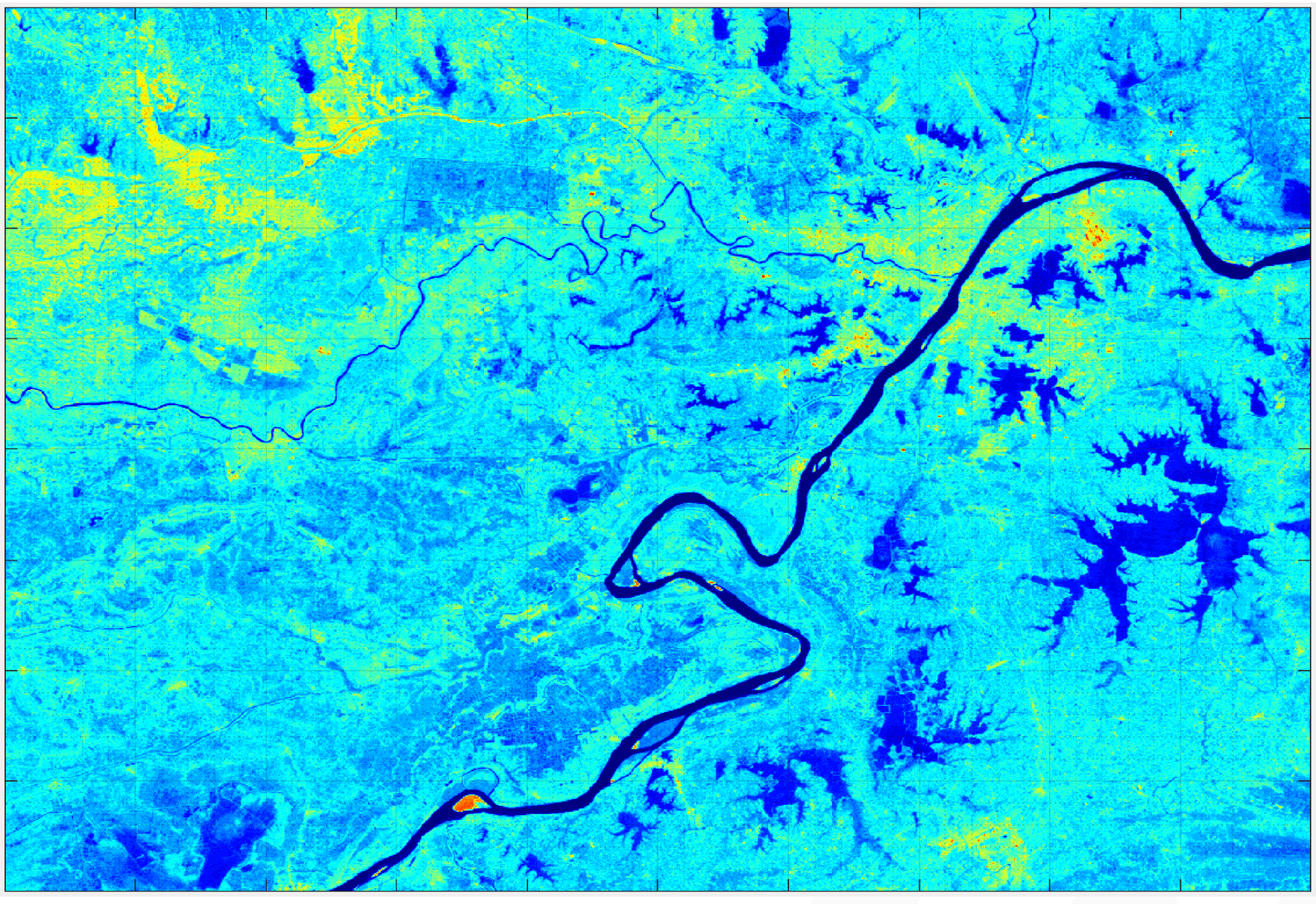
# Cooling Effect of Urban Waters in Mitigating Heat Islands

Huizi Zhang[1]， Yaping Wang[1]， Bing Wen[1]

( 1.PowerChina Zhongnan Engineer-Corporation Limited HuNan ChangSha 410000 )



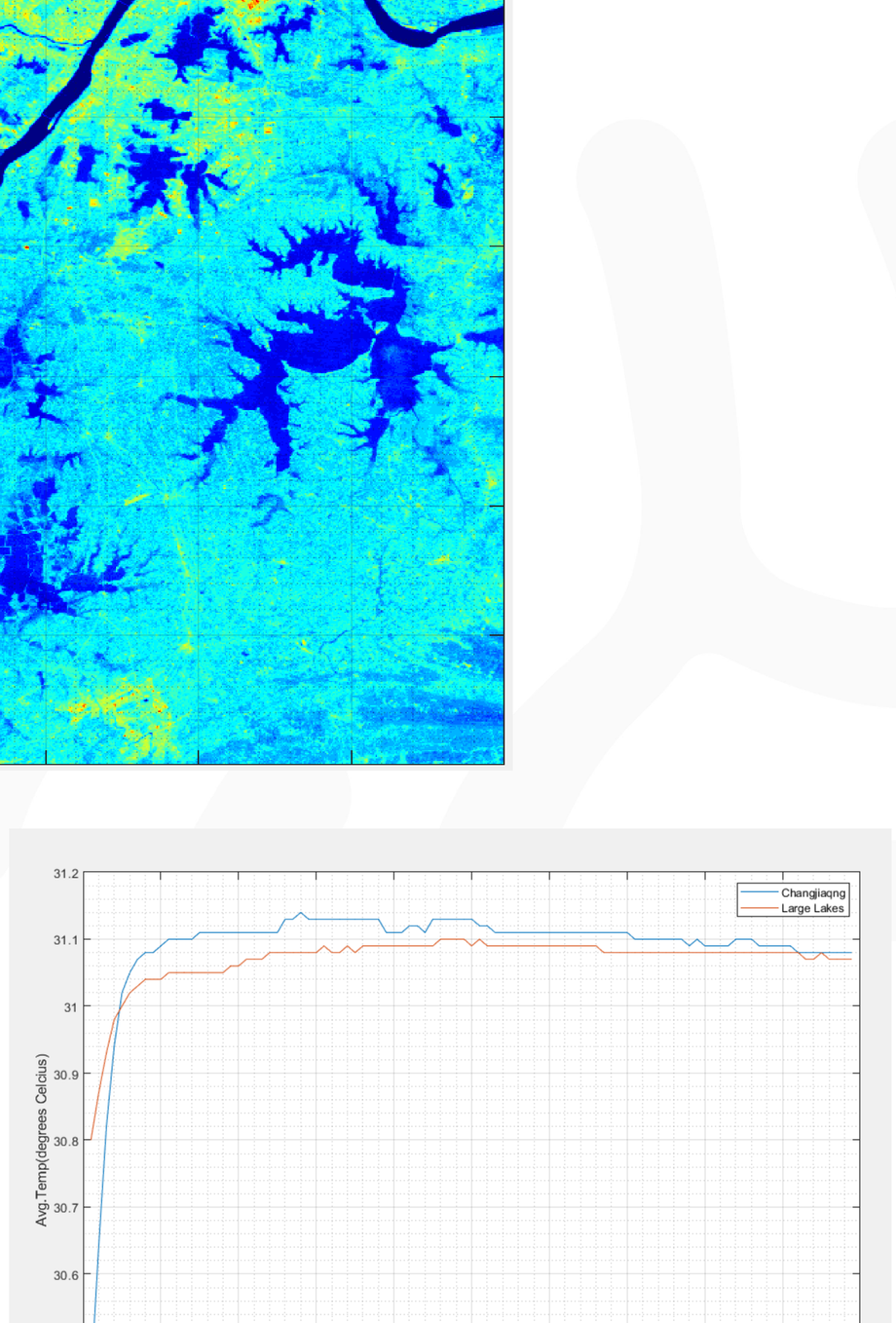
## Objectives

## Estimating and quantifying the cooling effect of urban waterbodies

## Methods

## Remote sensing reversal + Mathematical Morphology

- Wuhan and Jianghan Plain taken as the study area
- Landsat 8 images reversed by single-window algorithms
- Waterbodies identified and trimmed for statistics




## Results

## Significant Mitigation in Waterside Areas

- Significant decrease in surface temperature within ~150 to 200 meters from the water bank
- Changjiang shows greater extent of heat island mitigation
- Large lakes provides cooling effect too, to similar distances, but less effectively