

## The effect of an urban environment on the precipitation

# Yohei Shiraki[1]; Atsushi Higuchi[2]; Akihiko Kondoh[3]

[1] none; [2] CEReS, Chiba University, Japan; [3] CEReS, Chiba Univ.

<http://dbx.cr.chiba-u.jp/>

Heat island phenomenon has become to one of the serious problems that have been developed due to the intense human activities in urban area. This phenomenon influences not only an increase of the day with maximum temperature over 30 degrees Celsius and the night with maximum temperature over 25 degrees Celsius but also local precipitation in urban area.

In this study, the relationships between the rainfall frequency and the urban structure parameters are evaluated by using Radar-AMeDAS rainfall images to verify the effects of urbanization to the rainfall characteristics in urbanized area.

The results show the clear relationship between the heavy rain in the daytime over urbanized area and urban structures, however, evening rainfall may be affected by the moving rain events from westerly Kanto Mountain.