



forests



Special Issue Reprint

Urban Forest and Urban Microclimate

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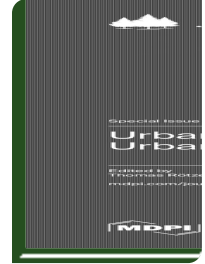
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Urban green addresses major urban challenges such as improving quality of life, preserving biodiversity, and adaptation to climate change. Especially urban trees as one of the main urban green components, are of special interest to enhance climate resilience of urban areas due to their capacity to moderate the urban microclimate, mainly through their cooling function which strongly depends on the trees' evapotranspiration and shading capacity. On the other hand, tree growth and tree vitality, both of which strongly affect the provision of ecosystem services, are influenced by many control factors, particularly the surrounding microclimate, built urban structure, and tree species characteristics. We hope topics from all fields, including experimental studies, monitoring approaches, or modeling studies, to contribute to this special issue in order to promote knowledge and adaptation strategies for improving the urban microclimate and for mitigating the negative impacts of climate change. The topics concerning patterns and processes of microclimatic regulation through urban trees are particularly important for our research. Topics for this Special Issue further include dynamics and functions of urban trees, and the effects of (micro-)climate and climate change on urban tree growth and their ecosystem services as well as studies on the growth patterns of urban trees.



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