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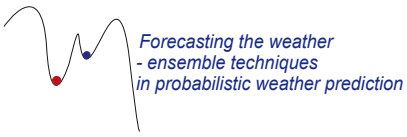

Urban Climate

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In urban agglomerations, the feedback processes between environmental conditions and human life are very intense. They scale with the sizes of cities. A well-known example is the urban heat island effect, which is not only largest for the largest cities, but also temporally more persistent. Other climatological issues associated with urbanization are air pollution, noise pollution, and light pollution. Global change, as an external driver, exhibits a strong impact on urban climate and intensifies specific processes. On the other hand, is urbanization a driver for global change?
European legislation asks for drastic reduction of air pollution levels in hundreds of cities. Densely built-up areas facilitate energy-conserving building structures. How will individual transport develop? Overall, what are the features of the city of tomorrow? In any case, today's urban planning comprises a large responsibility for future development.
Meteorological models play important roles in the development of process understanding and urban structures. Such models need to be based on experimental evidence. Today, matter fluxes into and out of cities are intensively studied using micrometeorological techniques. Another topic of importance is the assessment of the potential impact of climatic conditions on individual's quality of life. For example, do air quality monitoring stations represent the exposure of individual persons to air pollutants well? The presentation will touch new results and research strategies of urban climate.