

# Approaches and Applications to Urban Atmospheric Modeling

by Aron Jazcilevich\* and Williams Vazquez Morales\*\*

\*Centro de Ciencias de la Atmósfera, Universidad Nacional Autónoma de México

\*\*Universidad de Ciencias y Artes de Chiapas.

Several topics based on the authors' experience on modeling of the urban atmosphere will be presented. At a larger scale this includes interaction phenomena between a city and its surroundings affecting air quality, and the occurrence of urban confluence lines. To describe the atmosphere of a city at a finer scale is necessary to obtain urban morphology, apply flux parameterizations and vehicular emissions at a micro scale. These introduce several mathematical physics and complex system problems. Some applications such as the atmospheric effect of green roofs and current work leading towards an urban personal exposure model will be discussed.