Physically-Based Parameterization of Cloud Droplet Formation Athanasios Nenes

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Abstract:

The effects of aerosols on clouds (known as the "aerosol indirect climatic effect") are thought to have a net climatic cooling effect which partially offsets greenhouse gas warming. Despite its importance, the complex and multi-scale nature of aerosol-cloud interactions makes quantitative assessments of the indirect effect one of the most uncertain components of anthropogenic climate change. This talk will present the approaches used to observationally study the aerosol-cloud droplet link and parameterize them in global models.