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Atmospheric Chemistry Observations & Modeling Laboratory

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Atmosphere and Ecosystems : How do they communicate with each other ?

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Minor gaseous constituents of the atmosphere are continuously exchanged in both directions between atmosphere and earth surface. They can be air pollutants (ozone, nitrogen oxides, ammonia, etc.), greenhouse gases (carbon dioxide, methane, N_2O), natural substances like water vapour, terpenes, aldehydes). Despite the small atmospheric mixing ratios of these substances, the effects of their deposition or emission can be important, both at global and local scale Just to give an example, penetration of ozone in the tissues of plants causes damage to their physiology, leading to crop yield losses and reduction of the growth rate of forests. Other exchange processes, especially those caused by human activities, deserve to be quantified. Various methods to determine air-surface fluxes are available, especially micrometeorological and enclosure techniques. These methods are mainly using the principles of micrometeorology and boundary layer physics. A good knowledge of plant physiology is also needed.

Friday, June 12, 2020, 10:00 a.m
Virtual refreshment 9:45 a.m
Live webcast: meet.google.com/yex-ymfj-ooh
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The National Center for Atmospheric Research is operated by the University Corporation for Atmospheric Research under the sponsorship of the National Science Foundation