

SEMINAR

Using MEGAN in high resolution air quality studies in eucalypt-rich Australia

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Abstract:

Australia is a global hotspot of isoprene emissions during summer due to the high abundance of eucalypts in regions such as the Blue Mountains near Sydney. In the Model of Emissions of Gases and Aerosols from Nature (MEGAN), this isoprene-rich region is accounted for by a doubling of tabulated emission factor values for broadleaf trees. I've been examining these assumptions using three sets of field campaign data from the Sydney region.

A significant amount of work went into coupling the MEGAN code to our Australian chemical transport model (CTM). The CTM is used for regional air quality studies, and uses nests of successively higher resolution grid squares down to 1km. One of the greatest challenges was nesting MEGAN within this framework, and finding appropriate high resolution vegetation maps for Australia. My findings show a "Goldilocks" effect, in that modeled isoprene is too high, monoterpenes are too low, but methanol is about right.

Date: Wednesday, June 10
Time: 10:15a.m. - Refreshments, 10:30a.m - Seminar
FL2-1001, Small Auditorium

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