FACOLTÀ DI SCIENZE MATEMATICHE FISICHE E NATURALI DIPARTIMENTO DI MATEMATICA E FISICA INTERNATIONAL DOCTORAL PROGRAM IN SCIENCE

Eddy covariance: from monitoring techniques to data analysis and risk assessment

12 hours course

Dott. Angelo FINCO

COURSE AIMS

The course first provides a brief introduction to the micrometeorology of the planetary boundary layer, and in particular to the main techniques, the applicability of these techniques, and the fluxes corrections. Then the course focuses on the ozone deposition over different ecosystems, results from literature are presented, and the importance of the stomatal fluxes will be discussed, as well as the different parameterization employed in the main deposition schemes; prognostic and diagnostic models are showed too. A practice session is proposed to students with some examples of ozone dose calculation. Strengths and limits of the parameterizations, models and deposition schemes are also highlighted. Finally, the problem of canopy-atmosphere coupling/decoupling is presented with the main technique used to determine coupling/decoupling events.

Topics covered

- Introduction to micrometeorology, measuring techniques and fluxes correction (2 h)
- Introduction to the ozone fluxes from measurements to modelization (5 h)
- Practice session on dose calculation (1 h)
- Canopy-atmosphere coupling/decoupling (3 h)

PhD course

Thursday 29th July 2021 9.30-12.30 and 14.00-17.00 Friday 30th July 2021 9.30-12.30 and 14.00-17.00

Click here to join the course

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