

**Water in a Changing Climate
Melbourne Australia, 24-28 2009
iLEAPS Posters**

iLEAPS Session 1: Surface Exchange Processes from Leaf-Level to Earth System Scale

Poster Session: Tuesday 25 August, 17.30-19.00

- i1-1 Microclimates and CO₂/heat fluxes in flooded and aerobic rice fields in the Philippines
Alberto Ma. Carmelita, R. Wassmann, T. Hirano, A. Miyata, A. Kumar, A. Padre, M. Amante
- i1-2 222Rn and its usage for estimation of greenhouse gases emissions in the surface layer
Elena V. Berezina, N.F. Elansky, A.M. Obukhov
- i1-3 Open-path instrument for eddy covariance measurements of methane flux
George Burba, T. Demetriades-Shah, L. Xu, T. Anderson, D. McDermitt, J. Schledlbauer, D. Zona, S. Oberbauer, W. Oechel
- i1-4 Eddy covariance fluxes of carbon dioxide and water measured with new compact gas analyzer
George Burba, M. Furtaw, D. McDermitt, T. Demetriades-Shah
- i1-5 Sensitivity of whole-plant water use to plant properties at elevated CO₂ and drought at the Hawkesbury forest experiment: a model-based analysis
Remko Duursma, B. Medlyn, C. Barton, M. Löw, D. Ellsworth, D. Tissue, D. Eamus, R. McMurtrie
- i1-6 Fine resolution estimates of land surface energy and water fluxes from a land surface model
Phil P. Harris, C.M. Taylor
- i1-7 Soil-Litter-Iso: a one-dimensional model for coupled transport of heat, water and stable isotopes in soil with a litter layer and root extraction
Vanessa Haverd, M. Cuntz
- i1-8 Comparison of algorithms for determining remotely sensed evapotranspiration in northern Australian savannas
Carol Hensley, J. Beringer, P. Isaac
- i1-9 Monitoring gross primary productivity, evapotranspiration, and plant water use efficiency using MODIS
Sinkyu Kang, K. Jang, N. Do
- i1-10 Numerical study of surface water and energy exchanges in arid regions using detailed land surface model including fog deposition on vegetation
Genki Katata, H. Nagai
- i1-11 Temperature dependence of day-time concentrations of biogenic volatile organic compounds in a boreal forest and their connection to new aerosol particle formation
Hanna K. Lappalainen, S. Sevanto, J. Bäck, J. Rinne, M. Kulmala
- i1-12 Characteristics of canopy turbulence in complex terrain
In-Hye Lee, Young-Hee Lee
- i1-13 Greenhouse gas dynamics of North Australian tropical savanna woodland: seasonality and fire
Stephen Livesley, S. Grover, L. Hutley, S. Arndt, P. Isaac, J. Beringer
- i1-14 Relation of satellite image to forest soil conditions in permafrost area, Eastern Siberia
Supannika Potitthep, R.e Suzuki
- i1-15 Development of improved parameterizations of snow-atmosphere gas exchange processes in earth system models
Brian Seok, L. Ganzeveld, D. Helmig, R.E Honrath, L.J Kramer, C. Tor, B. Van Dam
- i1-16 Drought responses of water and carbon cycles in a boreal forest
Sanna Sevanto, T. Hölttä, P. Kolari, S. Lainuainen, J. Korhonen, J. Pumpanen, E. Nikinmaa, T. Vesala
- i1-17 Atmospheric CO₂ measurements in mountainous terrain to monitor regional fluxes and local disturbance
Britton Stephens, S.i Heck, D. Moore, A. Desai
- i1-18 Monitoring stable water isotopes in the biosphere and atmosphere: high resolution field data
Carol Tadros, V. Haverd, D. Griffith, S. Parkes, A. Williams
- i1-19 Long-term measurements of volatile organic compound emissions from a boreal forest
Risto Taipale, T.M. Ruuskanen, M.K. Kajos, J. Patokoski, H. Hakola, J. Rinne
- i1-20 Spatial and temporal variations in trace gas exchange rates observed in a forest soil
Yoshiyuki Takahashi, N. Liang
- i1-21 Unique observations of atmospheric turbulence associated with a low intensity savanna fire, Adelaide river, Australia
Nigel Tapper, M. Katurji, J. Beringer, L. Hutley
- i1-22 Observations of CO₂ advection and subcanopy flow in two Amazon tropical rainforest: LBA-ECO project sites
Julio Tota, D.R. Fitzjarrald
- i1-23 Representativeness of ground flux sites to regional scale airborne fluxes
Olaf S. Vellinga, R.W.A. Hutjes, J.A. Elbers
- i1-24 The temperature and moisture sensitivities of soil carbon dioxide efflux altered by tillage in wheat field of loess plateau, China
Xiaoke Wang, H. Zhang, Z. Feng
- i1-25 Evapotranspiration fluxes for three land cover classes in the tropical savannas of the daily river region of Australia
Richard A. Weinmann, P. Isaac, L. Hutley, J. Beringer

- i1-26 The simulation of water/energy fluxes for FLUXNET sites based on the concept of potential response characteristics: scale up from leaf to canopy
Ryuhei Yoshida, T. Yamazaki, T. Ohta
- i1-27 The air mass exchange between the surface air and troposphere driven by the local circulation on the northern slope of Mt. Everest
Libo Zhou, H. Zou, S. Ma, J. Zhu, P. Li, C. Huo

iLEAPS Session 2: Progress in Land-Atmosphere Interactions and Climate Change

Poster Session: Thursday 27 August, 17.30-19.00

- i2-1 Promoting sustainable human settlements and eco-city planning approach: Southeastern Anatolia region and Southeastern Anatolia project (GAP) in Turkey as a case study
Bulent Acma
- i2-2 Global flood and landslide prediction using satellite observations—real-time and climate change scenario applications
Robert Adler, K. Yilmaz, Y. Hong, D.B. Kirschbaum, H. Pierce, F. Policelli
- i2-3 Comparison of CERES TOA shortwave fluxes to CCSM3 simulations with MODIS-derived land surface parameters
Valentine G. Anantharaj, U.S. Nair, P. Lawrence, T.N. Chase, S. Christopher, T. Jones
- i2-4 Mixing in the lower atmosphere: An application of long-term tower-based radon gradient measurements
Scott Chambers, W. Zahorowski, A. Williams, A. Vermeulen, B. Verheggen, J. Crawford, O. Sisouatham
- i2-5 Effect of coordinate rotation and averaging period on estimating surface heat and water vapor fluxes over mountainous terrain
Yi-Ying Chen, M.-H. Li
- i2-6 Evaluation of the impact of surface albedo and orography in the simulation of the West African monsoon in 2006
Emmanouil Flaounas, S. Bastin, S. Janicot
- i2-7 Land use change in North Australian savanna and the impact upon greenhouse gas exchange
Samantha Grover, L. Hutley, S. Livesley, S. Arndt, P. Isaac, J. Beringer
- i2-8 The advances in observational study of atmospheric boundary layer in Taklimakan desert
Qing He, A. Mamtimin, S. Li, X. Liu, W. Huo, X. Yang
- i2-9 The PILPS paradox: How average improvement hides lousy land-surfaces
Ann Henderson-Sellers, K. McGuffie
- i2-10 Impact of the future radiation change on terrestrial carbon budget: A model simulation analysis
Akihiko Ito, D. G. Dye
- i2-11 Increase in vegetation greenness and decrease in springtime warming over East Asia
Su-Jong Jeong, C.-H. Ho, J.-H. Jeong
- i2-12 Variation of carbon dioxide and meteorological factors in a campus area
Kwang Ho Kim, B.S. Kim, M.S. Kim, B.H. Kwon, D.H. Kang
- i2-13 The effect of climate change and elevated atmospheric CO₂ on the carbon dynamics of mountain ash (*Eucalyptus regnans*) forests
Kenichi Kurioka, J. Beringer, L. Hutley, A.D. McGuire, E.S. Euskirchen
- i2-14 Carbon and water budgets of Australian Alpine grasslands
Ian McHugh, J. Beringer, N. Tapper, M. Adams
- i2-15 Amplification and buffering of climate change: The succulent thicket of South Africa as a climate regulator
Kathleen Mennell, B. Scholes
- i2-16 Summer monsoon rainfall trends and teleconnections with climatic indices over Andhra Pradesh, India – global warming
Kailasam Muni Krishna, S.R. Rao
- i2-17 Time series comparisons of model and in-situ surface fields in the CEOP EOP3/4 data set
Lawrie Rikus
- i2-18 How the methane balance changes if agricultural peatlands are transformed into wetland nature and how this transformation influences the total carbon balance
Arina P. Schrier-Uijl, P. Kroon, D. Hendriks, E.M. Veenendaal, P.A. Leffelaar, F. Berendse
- i2-19 A pilot assessment of biological and geochemical components of ecosystem-scale CO₂ exchange
Penelope Serrano-Ortiz, M. Roland, F. Domingo, S. Sanchez-Moral, I. Janssens, A.S. Kowalski
- i2-20 Geoinformatics based monitoring and predicting urban heat islands and promoting carbon resilience city: Case of Delhi
R.B. Singh, Manoj
- i2-21 Potential of satellite remote sensing for vegetation dynamics study in relation to meteorological variability
Rikie Suzuki, K. Masuda, H. Sakai, A. Kondoh
- i2-22 Possible land cover change feedbacks to albedo and net radiation in Siberia in a warming climate
Nadezda Tchepakova, E. Parfenova
- i2-23 Triggering and amplification of heatwaves in Europe
Guojie Wang, Albertus J. Dolman
- i2-24 Calibration of a global model of carbon, nitrogen and phosphorus cycle of terrestrial ecosystems
Yingping P. Wang, B. Pak, R.M. Law

- i2-25 Variability of carbon, water and energy fluxes in the Australia's top end
Stephen A. Wood, J. Beringer, P. Isaac, L. Hutley
- i2-26 On the relationship of light use efficiency and driving climatic factors in East Asia forests
Weixing Wu, G. Yu, S. Wang, L. Zhou, M. Zhang, Others
- i2-27 Impacts of historical land use changes on the seasonal march of the Asian summer monsoon
Ryoji Yamashima, J. Matsumoto, K. Takata
- i2-28 Effects of forest distribution change on regional climate and hydrology in China: A numerical simulation study
Yan Xiaodong, W. Qiong, X. Zhe
- i2-29 Remote sensing of East Asian summer monsoon-driven terrestrial ecosystem in eastern China
Fengmei Yao, J. Zhang
- i2-30 Evaluation of the dependence of vegetation on climate in an improved dynamic global vegetation model (CLM-DGVM)
Xiaodong Zeng
- i2-31 Impact of biofiltration systems on water, mass and energy balances in urban areas
Alice Niculescu, A. Deletic, E. Daly, J Beringer

iLEAPS Session 3: The role of Atmospheric Boundary Layer Processes in Modulating Surface Exchanges

Poster Session: Thursday 27 August, 17.30-19.00

- i3-1 Turbulent boundary layer dynamics: Intermittent or persistent turbulence?
Florence Bocquet, B. Balsley
- i3-2 Mixing in the lower atmosphere: An application of long-term tower-based radon gradient measurements
Scott Chambers, W. Zahorowski, A. Williams, A. Vermeulen, B. Verheggen, J. Crawford
- i3-3 Assessing model transport and boundary layer parameterizations in a climate model using atmospheric CO₂ concentrations
Katherine D. Corbin, R.M. Law
- i3-4 The structure and energetic of the convective boundary layer over forest and pasture in the Amazon region
Gilberto Fisch, J. Avelar
- i3-5 A modeling and observational framework for diagnosing local land-atmosphere coupling on diurnal time scales
Joseph A. Santanello Jr., C.D. Peters-Lidard, S. V. Kumar, C. Alonge, W.K. Tao
- i3-6 Nocturnal boundary layer measurements during the Amazonian Aerosol Characterization Experiment (AMAZE)
Julio Tota, G. Fish, P. Artaxo, M.A. da Silva Dias, S. Martin
- i3-7 Characteristics of canopy turbulence during the transition from convective to stable conditions
Eva van Gorsel, J.J. Finnigan, I.N. Harman, R. Leuning

iLEAPS Session 4: Aerosols from the Land Surface and their Interactions with the Climate System

Poster Session: Tuesday 25 August, 17.30-19.00

- i4-1 Evolution of SOA formation and budget over the 21st century with implications for climate and air quality
Gerd A. Folberth, N.L. Abraham, W.J. Collins, C.E. Johnson, O. Morgenstern, F.M. O'Connor, P. Young
- i4-2 Characterization of chloride deposition in a coastal hilly area and its implication for the land-surface effect on aerosol removal
Huade Guan, A. Love, C. Simmons, S. Priestley, Z. Ding, A. Kayaalp, C. Lenehan, G. Green
- i4-3 Cloud condensation nuclei in pristine tropical rainforest air of Amazonia: Size resolved measurement and modelling of atmospheric aerosol composition and CCN activity
Sachin S. Gunthe, S.M. King, D. Rose, Q. Chen, P. Roldin, D.K. Farmer, J.L. Jimenez, P. Artaxo, M.O. Andreae, S.T. Martin, U. Pöschl
- i4-4 Land use change suppresses precipitation
Wolfgang Junkermann, J. Hacker, T. Lyons, U. Nair
- i4-5 The effect of Kola peninsula air pollution to the air quality in eastern Lapland
Ella-Maria Kyrö, V. Vakkari, A. Virkkula, K. Lehtipalo, I. Riipinen, M. Kulmala
- i4-6 Aerosol mass spectrometer with laser desorption and ionization in nanoparticle analysis
Totti Laitinen, K. Hartonen, M.-L. Riekkola, M. Kulmala, D. Worsnop
- i4-7 The temporal-spatial distribution character and effect factors of TSP in Tarim Basin
Xin-chun Liu, Y. Zhong, M. Ali, Q. He, X. Liu
- i4-8 Organic aerosols and their biogenic precursors at a southern Ontario mixed forest
Ralf Staebler, J. Liggio, S.-M. Li, K. Hayden, P. Brickell
- i4-9 Cloud base aerosol and associated microphysical characteristics in southeast Queensland
Sarah Tessendorf, R. Bruintjes, D. Axisa, C. Arnold, J. Peter, L. Wilson, M. Manton, P. May, R. Stone, I. Craig, S. Piketh
- i4-10 Optical properties of biogenic aerosols: large scale measurements in Amazonia
Kenia Wiedemann, P. Artaxo, L. Rizzo