

WATER IN A CHANGING CLIMATE

Progress in Land-Atmosphere Interactions and Energy/Water Cycle Research

Parallel Science Conferences with Joint Sessions

Melbourne, Australia, 24-28 August 2009



GEWEX Posters (8/27/09)

Click on poster title to see PDF of poster. Links to posters will be added as they are received.

GEWEX Session 1: Regional Forecasting and Predictions for Hydrological Applications in Arid Zones

- G1-1 *A Bayesian joint probability (BJP) approach to seasonal forecasting of streamflows in Southeast Australia: Predictor selection and skill assessment, David Robertson*
- G1-2 *Bias correction and forecast skill of NCEP GFS Ensemble week 1 and week 2 precipitation and soil moisture forecasts, Yun Fan*
- G1-3 *Development of a real time hydrologic monitoring and seasonal forecast system for drought assessment, Justin Sheffield*
- G1-4 *Helioclimatological grounds of river flow formation, Bakhram Nurtayev*
- G1-5 *Hydrological assessment of the Australian Land Surface Model CABLE in the Murray Darling Basin via remotely sensed soil moisture, Christoph Rudiger*
- G1-6 *Impact of domain size and geographical coverage on modeling of tropical heavy rainfall event, Himesh Shivappa*
- G1-7 *Improving feed resources in the saline desert areas of Uzbekistan by introducing the strip-alley agropastoral cropping system with using the tools EM-38 and Green Seeker (NDVI), Aralova Dildora*
- G1-8 *Land cover change in the Barekese River Basin of Ghana, Tyhra Carolyn Kumasi*
- G1-9 *Regional soil moisture simulation by SWAT, validation and trend analysis over Shaanxi province in China, MingXing Li*
- G1-10 *Satellite data integration for drought monitoring and water resources applications, Matthew Rodell*

GEWEX Session 2: Rainfall Variability and Drought in Australia

No posters in this session

GEWEX Session 3: Analyses of Water and Energy Cycles

- G3-1 *Comprehensive comparison of total column water vapour climatology from various re-analyses and two SSM/I-derived products, Joerg Schulz*
- G3-2 *Diagnosing meteorological drought mechanisms with global and regional reanalysis data, John Gyakum*
- G3-3 *Evaluation of cloud physical properties of ECMWF Reanalyses (ERA-40 and ERA Interim) against CERES tropical deep convective cloud object observations, Kuan-Man Xu*
- G3-4 *Global precipitation characteristics and variability on the seasonal-to-interannual time scales, Guojun Gu*
- G3-5 *Intra-seasonal variability of Indian monsoon: Examination through NCEP reanalysis data, Ashwini Kulkarn*
- G3-6 *Surface downwelling longwave radiation: Evaluation of ERA-Interim for use in climate monitoring, Joerg Trentmann*

GEWEX Session 4: Climate Prediction Systems

- G4-1 *A new improved mathematical method to estimate stabilized formation temperatures using thermal recovery data of permafrost boreholes, Orlando Miguel Espinoza Ojeda*
- G4-2 *Climate change and return precipitation in Morocco, Mohammed-Saïd Karrouk*
- G4-3 *Contribution of soil moisture information to streamflow prediction in the snowmelt season, Rolf Reichle*
- G4-4 *Ensemble prediction of seasonal variability with a Coupled Ocean-Atmosphere Model, Jorgen Frederiksen*
- G4-6 *Impacts of observed moisture information on the systematic tendency error in a data assimilation system, Seung-On Hwang*
- G4-7 *Pollution, the great unknown and its impact upon agricultural productivity, Andrew Beckwith*
- G4-8 *Pre-harvest rice yield prediction using agrometeorological indices in a northern district of Bangladesh, Abdul Baten*

GEWEX Session 4 (Continued)

- G4-9 *Relationships between the anomalies of sea-land thermal contrast in the Northern Africa areas and the flood and drought in the Changjiang and Huaihe River areas in summer*, Yong Zhao
- G4-10 *Subseasonal forecast skill associated with realistic initialization of land surface states in AGCMs*, Tomohito Yamada
- G4-11 *The impact of MJO on ensemble forecasts of the 1997/98 El Niño in the POAMA model system*, Li Shi

GEWEX Session 5: Regional Downscaling

- G5-1 *Current-climate downscaling at the National Center for Atmospheric Research*, Thomas Warner
- G5-2 *Downscaling ability of a cloud-resolving regional climate model*, Cathy Hohenegger
- G5-3 *Dynamical downscaling of climate change projection over the African Region using RegCM3*, Laura Mariotti
- G5-4 *Dynamical downscaling of urban climate around Tokyo using CReSiBUC*, Kenji Tanaka
- G5-5 *Dynamical downscaling with the stretched grid CCAM: Impacts using various approaches*, Jack Katzfey
- G5-6 *Efficient usage of vertically and temporally coarse global forcings for regional model integrations*, Kei Yoshimura
- G5-7 *Examination of impact of climate change on runoff processes of the Agano River, Japan*, Xieyao Ma
- G5-8 *Future population estimates at risk of flooding*, Shinjiro Kanae
- G5-9 *Intense coastal rainfall in the Netherlands in response to high sea surface temperatures*, Erik van Meijgaard
- G5-10 *Performance of nested cloud-scale simulations of tropical convection using the WRF model*, Kathrin Wapler
- G5-11 *Petrography and stable isotopes studies of Hangaran ls waenites, south of Mokhtaran, Ophiolitic zone*, Pooneh Eshback
- G5-12 *Potential influence of climate change on atmospheric rivers induced heavy precipitation and flooding*, L. Ruby Leung
- G5-13 *Regional Climate Models' conditional downscaling ability - Role of land/atmosphere coupling methodology and snow parameterizations in regional climate downscaling*, Yongkang Xue
- G5-14 *Satellite-based datasets for validation of regional climate models: The CM-SAF product suite and new possibilities for processing with 'Climate Data Operators'*, Jörg Schulz
- G5-15 *Simulating Laurentian Great Lakes Water Levels with the Canadian Regional Climate Model*, Murray MacKay
- G5-16 *Simulation of interannual variability of rainfall and pan evaporation over Australia*, Kim Nguyen
- G5-17 *Simulation of regional climate change under IPCC A2 scenario in southeast China*, Zhihong Jiang
- G5-18 *Testing the ability of RIEMS2.0 to simulate extreme climate events and long term climate in China*, Deming Zhao
- G5-19 *Uncertainty in GCM projections, downscaling methods and hydrological modelling of future streamflow*, Francis Chiew

GEWEX Session 6: Regional Hydroclimate Projects and Studies

- G6-1 *Can the evaporation measured by pan replace the terrestrial actual evaporation to study the water cycle in China?* Liu Bo
- G6-2 *Climate Prediction Program for the Americas (CPPA) Contributions to GEWEX*, Jin Huang
- G6-3 *Design and development of a decision support system for integrated management of water resources*, Hicham Mharzi Alaoui
- G6-4 *HyMeX, an experimental program dedicated to the hydrological cycle in the Mediterranean (2010-2020)*, Jean-Christophe Calvet
- G6-5 *Low analysis of River Owena, Nigeria in response to rainfall events*, Akinyemi Gabriel Omonijo
- G6-6 *MAHASRI*, Jun Matsumoto
- G6-7 *Murray-Darling Basin regional hydroclimate project*, Jason Evans
- G6-8 *Observed and projected changes in precipitation regime over Utah*, Robert Gillies
- G6-9 *River discharge simulation considering dam operations in Japan*, Tomoko Nitta
- G6-10 *Study on the variations of runoff in the Urumqi River Basins, Tianshan, China under climatic changes*, Tianding Han
- G6-11 *Study on the zone of maximum precipitation in the North Slope of the Central Qilian Mountains in northwest China*, Ninglian Wang
- G6-12 *The frequency distribution of daily precipitation over the US: A contribution to the CPPA Program*, Emily Becker
- G6-13 *The Northern Eurasia Earth Science Partnership Initiative (NEESPI): Science applied to societal needs*, Richard Lawford

GEWEX Session 6 (Continued)

- G6-15 *Toward integrated management of earth system data 1. Example data products*, Kooiti Masuda
- G6-16 *Toward integrated management of earth system data 2. A document centric metadata registration tool*, Hiroko Kinutani
- G6-17 *Variability in water and energy budgets across GEWEX RHPs from long-term observation forced land surface hydrologic simulations*, Justin Sheffield

GEWEX Session 7: Observing Surface Fluxes: From Local to Global Scales

- G7-1 *A comparative study on calculation methods of the turbulent heat flux of surface layer in the Taklimakan Desert*, Ali Mamtimin
- G7-2 *A preliminary study on boundary layer Tethersonde observation in Taklimakan Desert Hinterland*, Qing He
- G7-3 *Combining satellite data and land model outputs to advance in the estimation of global land surface*, Carlos Jimenez
- G7-4 *Comparison of high resolution precipitation products from satellite and numerical weather prediction*, Elizabeth Ebert
- G7-5 *Development of a Land Surface Evapotranspiration Product based on MODIS and ISCCP surface radiative fluxes*, Qihong Tang
- G7-6 *Dissolved Organic Carbon (DOC) Transport from the longest river in Indonesia, the Kapuas River, to South China Sea*, Gusti Anshari
- G7-7 *Estimation of land surface energy flux for grassland base on satellite remote sensing*, Yi Song
- G7-8 *Estimation of the soil moisture and land surface flux at the Tibet Gaize station, by using LDAS-UT*, Katsunori Tamagawa
- G7-9 *Evaluation of the influence of precipitation changes on evapotranspiration in a deciduous forest in Korea*, Hyojung Kwon
- G7-10 *Freshwater budget over the Mediterranean Sea*, Anastasia Romanou
- G7-11 *Global evaporation from multi-sensor satellite observations*, Richard de Jeu
- G7-12 *Limits to accuracy and optimal instrument deployment for eddy flux measurement in complex terrain*, Ian Harman
- G7-13 *Measuring and modelling of the turbulent fluxes over an heterogeneous urban area*, Insaf Bagga
- G7-14 *Measuring surface-atmosphere exchange at a range of scales along a strong rainfall gradient in Northern Australia*, Peter Isaac
- G7-15 *Measuring water vapour and CO₂ fluxes using open and closed path analysers*, Ray Leuning
- G7-16 *Monitoring the extent and variability of Australian river catchments using radar remote sensing*, Damien O'Grady
- G7-17 *Monitoring water fluxes using a geological weighing lysimeter under a complex surface condition*, Huade Guan
- G7-18 *New global estimates of surface turbulent fluxes from observations: long-term climatology and climate variability*, Sergey Gulev
- G7-19 *Observing and simulating land surface energy and water fluxes over the Tibet Plateau*, Hui Lu
- G7-20 *Optimally merging multiple precipitation sources for hydrometeorologic applications*, Yang Hong
- G7-21 *Progress on the observing surface fluxes over heterogeneous landscape of the Tibetan Plateau*, Yaoming Ma
- G7-22 *Reviving the Goddard Satellite-based Surface Turbulent Fluxes (GSSTF) dataset: Preliminary findings*, Chung-Li Shie
- G7-23 *Seasonal and interannual variations of evapotranspiration and energy exchange over degraded grassland and cultivation corn surfaces in a semi-arid area of Northeastern China*, Huizhi Liu
- G7-24 *Soil moisture impact on surface fluxes - results from in-situ measurements in Switzerland*, Irene Lehner
- G7-25 *Temporal extrapolation of instantaneous remotely sensed latent heat flux using geostationary data*, Matthew McCabe
- G7-26 *The impact of savannah clearing on evapotranspiration in the wet-dry tropics of Australia*, Richard Weinmann
- G7-27 *Trends in oceanic evaporation retrieved from the Goddard Satellite-based Surface Turbulent Fluxes based on SSM/I v6 (GSSTF2b) dataset*, Long Chiu

GEWEX Session 8: Multiscale Properties of the Tropical Energy and Water Cycles: From

Thunderstorms to Monsoons

- G8-1 *Central-Pacific ENSO: Evolution, generation, and teleconnection*, Jin-Yi Yu
- G8-2 *Characteristics of diurnal cycle of rainfall during MJO and ENSO phases*, Surendra Rauniyar

GEWEX Session 8 (Continued)

- G8-4 *Mesoscale convective systems in the Australia-Pacific region from CALIPSO and Cloudsat observations*, Martin Platt
- G8-5 *Multiscale tropical convection: linking convective momentum transport and gravity wave momentum flux*, Todd Lane
- G8-6 *Radar observation on coastal heavy rain band along southwestern side of Sumatera Island*, Shuichi Mori
- G8-7 *The Linkage between ENSO and transient eddies along the tropical storm track*, ChihHua Tsou
- G8-8 *The response of deep convective intensity to surface heterogeneity: observational tests of the WRF model*, Steven Sherwood
- G8-9 *Tropical convective behaviour of CCAM simulations*, John McGregor
- G8-10 *Vertical profiles of space-based rain and low atmospheric water budget estimates in West Africa using TRMM precipitation radar data*, Samo Diatta

GEWEX Session 9: Advances in the Representation of the Energy and Water Cycle in Models

- G9-1 *A new parameterization scheme for snow cover fraction in climate models*, Weiping Li
- G9-2 *Applications of community land model to semi-arid Mongolian Grassland*, Jun Asanuma
- G9-3 *Assessment on earth's energy budget simulated by CMIP3 models*, Ho-Jeong Shin
- G9-4 *Canopy dynamics, the roughness sublayer and the surface energy balance in numerical models of the atmosphere*, Ian Harman
- G9-5 *Data assimilation for better heat flux predictions from land surface models*, Robert Pipunic
- G9-6 *Decadal glacier volume change and its impact on global large rivers by a global glacier model HYOGA*, Yukiko Hirabayashi
- G9-7 *Development of global land surface emissivity map at AMSR-E passive microwave frequencies*, Reza Khanbilvardi
- G9-8 *Ensemble single column model simulations of TWP-ICE*, Laura Davies
- G9-9 *Estimating past water and energy budgets for the Australian continent using a land surface scheme incorporating hydrological models of varying complexity*, Vanessa Haverd
- G9-10 *Evaluation of climate models using satellite-observed water vapor and clouds profiles sorted by large-scale regimes*, Hui Su
- G9-11 *Evaluation of the accuracy in seasonal and inter-annual variability of soil moisture estimated from land surface model*, Kazuaki Yorozu
- G9-12 *Fractional vegetation coverage parameterization in distributed biosphere hydrological modelling*, Lei Wang
- G9-13 *Global evapotranspiration from remote sensing*, Joshua Fisher
- G9-14 *Improvement in the energy and water simulation in the soil-vegetation-atmosphere system*, Shusen Wang
- G9-15 *Improving land surface modelling in arid regions with an appropriate parameterization of the thermal roughness length*, Yingying Chen
- G9-16 *Intercomparison of land surface process scheme in a global model*, Kyung-Hee Seol
- G9-17 *Model development for studying water and heat exchange between the atmosphere & inland water body*, Shufen Sun
- G9-18 *On the transferability of models parameters and their uncertainty*, Luis Bastidas
- G9-19 *Stable water isotopes and convective parameterization*, Jung-Eun Lee
- G9-20 *Surface energy balance in the access atmospheric model: Implications for coupled model behaviour*, Harun Rashid
- G9-21 *Synthetic satellite imagery and model parameterization*, Lawrie Rikus
- G9-22 *The impact of errors in NWP precipitation forecasts on global water and energy fluxes*, Yudong Tian
- G9-23 *Use of the WRF and satellite data for land atmosphere modelling*, Venkat Lakshmi
- G9-24 *Using a network of scintillometers and ceilometers for validation of the WRF-mesoscale Model - Understanding the boundary layer energy budget*, Gert-Jan Steeneveld
- G9-25 *Validation of the global and limited area high-resolution NWP model simulations of DWD for TWP-ICE*, Kathrin Wapler
- G9-26 *Water cycle in a matrix of global atmospheric models: impact of better-resolved orography*, Marie-Estelle Demory

GEWEX Session 10: Cloud Climate Feedbacks

No posters in this session

GEWEX Session 11: The Role of Integrated Observing Systems in Closing Regional and Global Water and Energy Budgets

- G11-1 *Climatic change of energy and water cycles over the Tibetan Plateau*, Kun Yang
- G11-2 *Eco-hydrology for integrated water resources management in transboundary watercourse around the Nile*, Alaa El-Sadek
- G11-3 *Future satellite observations for studying cloud and precipitation processes*, Deborah Vane
- G11-4 *Global climatology of surface precipitation - State of knowledge and estimates of bias error*, Robert Adler
- G11-5 *Global land surface water coverage map database with remote sensing data fusion technique*, Wataru Takeuchi
- G11-6 *Heat and water balance estimates over a lake basin on the Tibetan Plateau*, Jianqing Xu
- G11-7 *Intercomparison of precipitable water observed by GPS and AIRS in the maritime continent*, Nobuhiko Endo
- G11-8 *Mapping evapotranspiration using MODIS products over the paddy rice field*, Keunchang Jang
- G11-9 *Retrieving water profiles and cloud properties from hyper-spectral satellite remote sensing data*, Xu Liu
- G11-10 *SMAPEX: Soil Moisture Active–Passive Remote Sensing Experiment for SMAP algorithm development*, Rocco Panciera
- G11-11 *Status and outlook for observation-based quantitative precipitation estimation at high latitudes*, George Huffman
- G11-12 *Southern ocean cloudiness: A combined A-Train and ISCCP Perspective*, John Haynes
- G11-13 *The high elevations of the world as key strategic areas in the regional and global energy and water*, Gianni Tartari

GEWEX Session 12: Climate Change and Global Precipitation

- G12-1 *A study of climate change and its effect on rice productivity in coastal area of Bangladesh*, Abdul Baten
- G12-2 *Analysis of rainfall variability over Western and Southern part of Sumatera Island related to the dipole mode event*, Eddy Hermawan
- G12-3 *Changes of elements of water balance and their forecast against global climate fluctuation*, Nikolaj Sheshko
- G12-4 *Climate change and disaster management: Special reference to water resources*, Rajesh Mall
- G12-5 *Climatological significance of stable isotopes in precipitation in the southwest China*, Xinping Zhang
- G12-6 *Decadal variations in the spring water cycle over Southeast China*, Ruixia Zhao
- G12-7 *Design of climate change and water adaptation in Belarus*, Kalinin Mikhail
- G12-8 *Development of a bias correction method to assess the water resources under climate change*, Satoshi Watanabe
- G12-9 *Effect of rainfall variability on cereal production in the Setif high plains*, Fenni Mohamed
- G12-10 *Environmental factors of rapid climate change in specific region of West Africa*, Francis Agboifoh
- G12-11 *Establishing more truth in extreme precipitation using very dense rain gauge network*, Olga Zolina
- G12-12 *Estimating bias errors of global precipitation*, Guojun Gu
- G12-13 *Global aridification in the second half of the 20th century and its relationship to large-scale climate background*, Zhuguo Ma
- G12-14 *Precipitation changes with midlatitude strength and frequency and the resulting climate feedbacks in observations and models*, George Tselioudis
- G12-15 *Simulating historical and future global river discharge using high-resolution climate model data*, Yadu Nath Pokhrel
- G12-16 *The annual variation of the East Asian climatology and Tibetan Plateau diabatic heating during boreal summer*, Xin Liu
- G12-17 *Towards an integrated water management model in the context of climate change at the river basin scale – Case study from Morocco*, Abdellatif Khattabi
- G12-18 *Trends and step changes in Lake Victoria rainfall*, Michael Kizza
- G12-19 *Variations of global oceanic precipitation based on Microwave Emission brightness Temperature Histograms (METH): SSM/I V6 results*, Long Chiu
- G12-20 *Vegetation changes over East Asia in response to climate changes during 1982-2006*, Hye-Sook Park
- G12-21 *Model projected changes of extreme wind events in response to global warming*, Guillaume Gastineau

GEWEX Poster Session 1: High Elevation Science

- GP1-1 *A study of hydrological process around Rongbuk Glacier, Mt. Qomolangma*, Xiang Qin
- GP1-2 *Adaptive countermeasures of permafrost degradation in Northeastern China*, Lihua Zhou
- GP1-3 *CEOP- High Elevations: Present status and future scenarios*, Kenichi Ueno
- GP1-4 *Changes of the monsoonal temperate glaciers in China during the last several decades*, Yuanqing He
- GP1-5 *Characteristic analysis of climatic change in the Himalayas area of China*, Chunping Tan
- GP1-6 *Climate Prediction Program for the Americas (CPPA) mountain studies*, Jin Huang
- GP1-7 *Climate, snow and glaciers in High Central Asia in the last 100 years*, Vladimir Aizen
- GP1-8 *Fluctuation of an alpine inland lake and climate change in recent 30 years, Tibet-Himalaya*, Liu Jingshi
- GP1-9 *Glacier regression in past decades and future trend in China*, Jiawen Ren
- GP1-10 *Intercontinental forest fire plume observations at Mt. Cimone High Elevation Station (Italy)*, Rocco Duchi
- GP1-11 *Mountain permafrost distribution modelling using a logistic regression model in eastern section of Qilianshan Mountain, Northwestern China*, Jing Li
- GP1-12 *Noah land-model simulations over a Tibetan plateau site*, Michael Ek
- GP1-13 *Organic species measured in air at a high elevation site of Mount Qomolangma (Everest)*, Ying Wang
- GP1-14 *Lessons learned from the operation of the United States Climate Reference Network at high elevations and/or in severe environments*, Gianni Tartari
- GP1-15 *Preliminary examination of data collected by SHARE Everest AWS at 8,000 m a.s.l.*, Gianni Tartari
- GP1-17 *Regional analysis on Chinese carbon dioxide emission*, Jiansheng Qu
- GP1-18 *Regional difference of annual precipitation and discharge variation over West China with high mountains during the last 50 years*, Yongjian Ding
- GP1-19 *Remote sensing method for the assessment of the environmental status of lake in the Himalayan region*, Alessandro Oggioni
- GP1-20 *SHARE Everest, the highest (8,000 m a.s.l.) Automatic Weather Station of the world: South Col, Mt. Everest, Nepal. Technical characteristics and preliminary results*, Elisa Vuillermoz
- GP1-21 *Soil thermodynamic characteristics of the top active layer on the Northern Tibetan Plateau*, Ren Li
- GP1-22 *Study on the land surface heat fluxes over heterogeneous landscape of the Tibetan Plateau*, Yaoming Ma
- GP1-24 *The effect of permafrost degradation on hydrological process in basins with various permafrost cover*, Baisheng Ye
- GP1-25 *The first SHARE - Automatic Weather Station (AWS) in Africa, Mt. Rwenzori (Uganda)*, Gian Pietro Verza
- GP1-26 *The Mt. Cimone High Elevation Station (2165 m a.s.l., Italy) for atmospheric research*, Paolo Cristofanelli
- GP1-27 *The recent evolution of glaciers and lakes in the Eastern Himalayas (Nepal) as witnesses of climate change*, Franco Salerno
- GP1-28 *The relationship between NDVI and precipitation on the Tibetan Plateau*, China Yili Zhang
- GP1-29 *The SHARE Project: Mountain climatic observations at high altitude*, Paolo Bonasoni
- GP1-30 *Two-years black carbon observations at Nepal Climate Observatory at Pyramid (Nepal, 5079 m a.s.l.)*, Angela Marinoni
- GP1-31 *Validate LDAS-estimated soil moisture and land fluxes in Tibetan Plateau and Mongolian Plateau*, Kun Yang
- GP1-32 *Variability of snow accumulation at the site with elevation of 7010m a.s.l. in Muztag Ata Mountain in Pamir Plateau*, Keqin Duan
- GP1-33 *Volcano eruption events recorded in an ice core from Central Himalaya*, Dongqi Zhang

GEWEX Poster Session 2: Future Generation of Integrated Observation and Modelling Systems

- GP2-1 *Future projections on the spatial distribution of carbon and water fluxes in a complex terrain*, Nayoung Do
- GP2-2 *Impact of climate change on flood risk in Asian monsoon region*, Seyed Ali Chavoshian
- GP2-3 *Neuralnet based forecasts for integrated flood monitoring system*, Alexander Volchak
- GP2-4 *Optimal reservoir operation using meso-scale quantitative precipitation forecast*, Oliver Saavedra
- GP2-5 *Response of evapotranspiration and CO₂ fluxes to intermittent precipitation pulses over degraded grassland and cultivation corn surfaces in a semi-arid area of Northeastern China*, Jianwu Feng