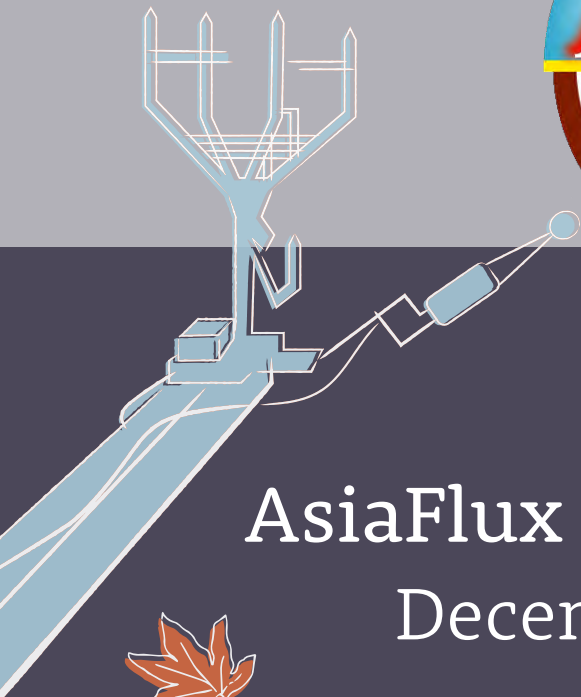


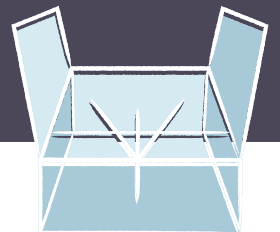


2021

PROCEEDINGS



AsiaFlux Online Conference
December 20-21, 2021



AsiaFlux Conference 2021 Organizing Committee

Kazuhito Ichii (Chiba University, Japan) (Chair)

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Design

Ayane Kosugo (Chiba University, Japan)

Support

Chihaya Miyamoto (Chiba University, Japan)

Acknowledgement

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AsiaFlux Conference 2021 Program (V3, Dec. 15, 2021)

Day 1: Dec 20, 2021 (TimeZone: Tokyo (JST) GMT+9)

Session 1: Invited Talk/Lecture (Chair: Shuli Niu)			
S1-01	12:30-13:00	Sara Knox (invited)	FLUXNET-CH4 – a global database of eddy covariance methane flux measurements
S1-02	13:00-13:30	Joe Berry (invited)	SiF and GPP

Break

Session 2: Climate Change, IPCC, Political Applications (Chair: Minseok Kang)			
	13:45-13:55	Kazuhito Ichii	Greetings
S2-01	13:55-14:25	Prabir K. Patra (invited)	Global and regional carbon budgets – lessons from IPCC AR6 and MIROC4-ACTM inversions
S2-02	14:25-14:40	Chandra S. Deshmukh	Tropical Peatland Conservation as a Natural Climate Solution Provides Significant Avoided Emissions
S2-03	14:40-14:55	Erik Velasco	Carbon sequestration potential of urban greenery

Break

Session 3: Site Measurements and Applications (Chair: Hiroki Ikawa)			
S3-01	15:05-15:20	Olga Kuricheva	Dry-season precipitation controls interannual variations in evapotranspiration in a monsoon tropical forest in Vietnam
S3-02	15:20-15:35	Arnon Setsungnern	Effect of strong El Nino on net ecosystem CO2 exchange and grain yield from Thai rainfed rice field
S3-03	15:35-15:50	Madan Subedi	Investigating the influence of extreme climatic events on net ecosystem carbon dioxide exchange (NEE) in a commercial oil palm plantation, Indonesia.

Break

Session 4: Regional Network Reports (Chair: Yoshiyuki Takahashi) (Program TBD)			
	16:00-17:00	Zhi Chen	Progresses and future directions of ChinaFLUX
		Minseok Kang	KoFlux
		Montri Sanwangsri	Research and Activity from ThaiFlux Network
		Jehn-Yih Juang	Taiwan Flux
			JapanFlux etc.

Break

Poster Session (Chair: Youngryel Ryu) See Poster List (Time: TBD)		
	17:10-18:30	Poster Session (including Lightning Talk 33 x 1min)

Day 2: Dec 21, 2021 (TimeZone: Tokyo (JST) GMT+9)

Session 5: Collaboration across network (Chair: Kazuhito Ichii)			
S5-01	12:30-13:00	Trevor Keenan (invited)	The FLUXNET Coordination Project: A new initiative to support global network-enabled science
S5-02	13:00-13:30	Jamie Cleverly (invited)	20 Years of OzFlux: Lessons learned and future OzFlux-AsiaFlux collaborations
S5-03	13:30-13:45	Yuhei Yamamoto	Application of AsiaFlux and OzFlux Network Data to the Validation of Himawari-8/AHI Land Surface Temperature Data
S5-04	13:45-14:00	Akihiko Ito	Global trends in land atmosphere CO ₂ exchange fluxes: an analysis of a flux measurement dataset and comparison with terrestrial model

Break

Session 6: New measurements and process understandings (Chair: Yuji Kominami)			
S6-01	14:15-14:45	Daniel Epron (invited)	Emissions of methane from tree stems in forests: where does methane come from and where does it go?
S6-02	14:45-15:00	Heping Liu	Non-Closure of Surface Energy Balance Linked to Asymmetric Turbulent Transport of Scalars by Large Eddies
S6-03	15:00-15:15	Christian Stiegler	Wind regimes above and below a dense oil palm canopy: Detection of decoupling and its implications on CO ₂ flux estimates
S6-04	15:15-15:30	Xudong Zhu	How land-sea interaction of tidal and sea breeze activity affect mangrove net ecosystem exchange?
S6-05	15:30-15:45	Jiangong Liu	Widespread thermal acclimation of canopy photosynthesis

Break

Session 7: Modeling and Remote Sensing (Chair: Jehn-Yih Juang)			
S7-01	16:00-16:15	Shaoqiang Wang	Response of crop photosynthesis to water stress in North China Plain based on vegetation chlorophyll fluorescence
S7-02	16:15-16:30	Weikang Zhang	GPPmax dominates the interannual variation of annual GPP in the north hemisphere
S7-03	16:30-16:45	Lang Han	Geographic patterns in the phenology and physiological properties of carbon fluxes and their correlations over the Northern Hemisphere
S7-04	16:45-17:00	Li Zhang	Using model-data fusion to estimate the carbon uptake of terrestrial ecosystems in China
S7-05	17:00-17:15	Desra Arriyadi	Estimating historical and future of water table depth and net ecosystem exchange in Katingan-Mentaya peat hydrological unit
	Closing	Shuli Niu/Minseok Kang	

AsiaFlux Conference 2021 Poster Program (V3, Dec 15, 2021)

No.	Presenter Name	Title
P-01	Bo Liu	Effects of advection on single crop coefficients over a humid paddy field in southern China
P-02	Manoj Hari	Evapotranspiration Estimation Mapping of the Rice Bowl of Tamilnadu, India: A Little Water to Spare
P-03	Shinjiro Ohkubo	Influence of fire and drainage on water fluxes in a degraded tropical peat swamp forest
P-04	Nikolay Zhirenko	Modeling photosynthesis of <i>Rhizophora apiculata</i> (South Vietnam)
P-05	Anuj T. Magar	Environmental control of leaf litterfall rates of species from tropical semi-deciduous ecosystems.
P-06	Sunom Shrestha	Using field measurements and a soil water balance model to investigate changes in soil moisture in oil palm plantations
P-07	Ting-Wei Chang	Establishment of rapid measuring protocol for isoprene emission capacity of palm species
P-08	Yuji Kominami	Change in soil carbon budget by Oak wilt disease in Japan
P-09	Taichi Noshiro	On the use of a light-weighted membrane drier for CO ₂ flux measurements in the cold environments
P-10	Yin Wang	An open-path ammonia analyzer for eddy covariance flux measurement
P-11	Nurul Ihsan Fawzi	A preliminary result of measuring peatland CO ₂ flux on coconut plantation in Riau Province of Indonesia
P-12	Linjie Jiao	Monitoring and analyzing latent heat flux simultaneously with leaf wetness by eddy covariance and SVAT multilayer model
P-13	Hojin Lee	Seasonal contrasting effects of PM _{2.5} on forest productivity in peri-urban region of South Korea
P-14	Sungsik Cho	Differences of CO ₂ /H ₂ O/CH ₄ eddy fluxes measured at two heights in a rice paddy
P-15	Palingamoorthy Gnanamoorthy	Altered albedo dominates the radiative forcing changes in a subtropical forest following an extreme snow event
P-16	Muhammad Amir	Reflectance and chlorophyll fluorescence-based retrieval of photosynthetic parameters improves the estimation of subtropical forest productivity
P-17	Fathima Abdurazak PA	Mapping the impact of flood using optical remote sensing in Periyar river basin, Kerala, India
P-18	Siyu Chen	Winter leaf reddening phenomenon: Tracking of changing patterns of vegetation indices and eddy covariance fluxes in a temperate Japanese cypress forest at Kiryu Japan
P-19	Jongmin Kim	Monitoring spring phenology of multi-layer canopy in a deciduous broadleaf forest: What signal do satellites actually see in space?
P-20	Da Wang	Changes in terrestrial vegetation activities observed by satellite-based products across Northern Asia

P-21	Tomoki Morozumi	Total and top-to-bottom emissions of solar-induced chlorophyll fluorescence in the canopy of a cool temperate deciduous broad-leaved forest in Takayama, Japan
P-22	Juwon Kong	Monitoring daily canopy photosynthesis using NIRvP maps at 10 m resolution using Sentinel 2 and GK2A
P-23	Yui Shikakura	Estimating diurnal GPP variations in East Asia using Himawari-8 data
P-24	Sungchan Jeong	Tracking diurnal to seasonal variations of gross primary productivity using a geostationary satellite, GK-2A Advanced Meteorological Imager in Korean Peninsula
P-25	Tatsuki Hashimoto	Generating LAI and FPAR Datasets using Himawari-8 AHI data
P-26	Hideki Ninomiya	Simulating the effect of carbon starvation on terrestrial ecosystem by individual-based vegetation model SEIB-DGVM
P-27	Ashehad A. Ali	Implementing a new rubber plant functional type in the Community Land Model (CLM5) improves accuracy of carbon and water flux estimation
P-28	Hina Yamanuki	Upscaling and Intercomparison of Soil Respiration in Japan
P-29	Rahmi Ariani	Improving carbon fluxes and stocks simulations by parameterizing the tropical evergreen plant functional type PFT: Applying CLM5 in Southeast Asia
P-30	Weinan Chen	Maximum leaf area index the seasonal temperature sensitivity of carbon uptake across northern ecosystems
P-31	Xingchang Wang	Interannual variations in CO ₂ fluxes and its environmental and biotic controls in a typical temperate secondary forest in Northeast China
P-32	Mohammad Samiul Ahsan Talucder	Climate-Smart Agriculture (CSA)-Based Assessment of a Rice Cultivation System in Gimje, Korea
P-33	Bin Chen	Including soil water stress in process-based ecosystem models by scaling down maximum carboxylation rate using accumulated soil water deficit

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