

The 9th GEMS Science Team Meeting

Date : October 1 - 3, 2018

Venue : Grand Ballroom C, Seoul Garden Hotel, Seoul, Korea

October 1 st (Mon.)			
8:00	9:30	Registration	Grand Ballroom C
		Opening	
	9:30	9:35 Opening Remarks	Jeong-Soo Kim (NIER Director General)
	9:35	9:40 Opening Remarks	Kelly Chance (Harvard-Smithsonian Center for Astrophysics)
		Special Guest Speaker	
	9:40	10:10 (Invited) Air Quality Issues in Asia	Yong Pyo Kim (Ewha Womans Univ.)
		Status of GEMS mission	
	10:10	10:25 Status of GEMS	Jhoon Kim (Yonsei University)
	10:25	10:40 GEMS ground system	Jongmin Yoon (NIER)
		Preflight Tests and Calibration	
	10:40	10:55 GEMS On-Ground Characterization & Mission Planning	Dai Ho Ko and Seunghoon Lee (KARI)
	10:55	11:05 Group Photo	
11:05	11:35	Coffee Break	
	11:35	11:50 Status of GEMS - Calibration	Myoung-Hwan Ahn (Ewha Womans Univ.)
	11:50	12:05 Status of GEMS polarization correction algorithm	Kwang-Mog Lee (Kyungpook National Univ.)
		Atmospheric composition (I): Ozone	
	12:05	12:20 Status of GEMS Ozone Algorithm : Total O3 and O3 profile	Jae Hwan Kim (Busan National Univ.)
	12:20	12:35 Feasibility study of tropospheric ozone retrieval using multi-spectral synergetic approach with UV, TIR and microwave measurements from space	Tomohiro Sato (National Institute of Information and Communications Technology)
12:35	14:00	Lunch Reception	Seoul Garden Hotel
		Atmospheric composition (II): NO2, SO2	
	14:00	14:15 Status of GEMS NO2 Retrieval Algorithm	Hanlim Lee (Pukyong Nat'l University)
	14:15	14:30 Status of GEMS SO2 Retrieval Algorithm	Hanlim Lee (Pukyong Nat'l University)
	14:30	14:45 Strategies for Stratosphere-Troposphere Separation of NO2 from TEMPO	Jeffrey Geddes (Boston University)
	14:45	15:00 Updated aerosol-explicit POMINO algorithm for trace gas retrievals for OMI and TropOMI: Possible collaborations with GEMS teams	Jintai Lin (Peking University)
15:00	15:30	Coffee Break	
	15:30	15:45 Assessment of NO2 observations during the DISCOVER-AQ and KORUS-AQ field campaigns	Sungyeon Choi (SSAI, NASA GSFC)
	15:45	16:00 Nitrogen Dioxide Profiles Construction Using In-Situ Observations for Air Mass Factor Calculation in Urban Area	Si-Wan Kim (Yonsei Univ.)
		Atmospheric composition (III): VOC	
	16:00	16:15 Tropospheric nitrogen dioxide and formaldehyde retrieval from the Chinese Environmental trace gas Monitoring Instrument and the ground-based validation	Cheng Liu (University of Science and Technology of China, USTC)
	16:15	16:30 Status of GEMS HCHO and CHOCHO Algorithm	Rokjin Park (Seoul National Univ.)
	16:30	16:45 SAO long-term satellite data records of HCHO, CHOCHO, and water vapor and their synergies with the GEMS and TEMPO missions	Gonzalo Gonzalez Abad (Harvard-Smithsonian Center for Astrophysics)
	16:45	18:00 Poster Session	Grand Ballroom C
18:00		Dinner (no host)	

October 2 nd (Tues.)			Grand Ballroom C
8:50	9:00	Opening	
		Aerosol, Cloud, and Surface	
	9:00	9:15 Status of GEMS Cloud Algorithm	Yong-Sang Choi (Ewha Womans Univ.)
	9:15	9:30 Status of GEMS Surface Reflectance Algorithm	Kwonho Lee (GWNU)
	9:30	9:45 Status of GEMS Aerosol Algorithm	Sujung Go, and Jhoon Kim (Yonsei Univ.)
	9:45	10:00 Utilization of Depolarization ratio in Atmospheric Aerosol Researches	Youngmin Noh (Pukyong National University)
10:00	10:30	Coffee Break	
		Ground Validation Plan	
	10:30	10:45 Status of GEMS - Validation Plan	Chang-Keun Song (UNIST)
	10:45	11:00 Status of GEMS - Asia Aerosol Network	Sangseo Park and Sang-woo Kim (Seoul National Univ.)
	11:00	11:15 Contribution of Intensive Campaign to GEMS validation	James Crawford (NASA Langley Research Center)
		Chemistry, Modeling, Data Assimilation and Application	
	11:15	11:30 Top-down NOx emissions over East Asia & Vertical profiles for air mass factor	Kyungman Han and Chul Han Song (GIST)
	11:30	11:45 Status of GEMS Synthetic Data generation	Ebony Lee and Seon-Ki Park (Ewha Womans Univ.)
	11:45	12:00 Recent NCAR studies of Asian pollution	David Edwards (NCAR)
	12:00	12:15 Development of an Imaging Fourier Transform Spectrometer (IFTS) and the potential space-based application	Tom McElroy (York University)
12:15	14:00	Lunch	
	14:00	14:15 Impact of aerosol-meteorology interactions and aerosol optical depth assimilation on meteorology during KORUS-AQ	Yunsoo Choi (University of Houston)
	14:15	14:30 Urban air quality predictions with 1km horizontal resolutions using WRF-CMAQ model and Himawari data	Takeshi Kuroda (National Institute of Information and Communications Technology)
	14:30	14:45 Too kink to be square? mapping satellite polygon footprints to regular grids by tessellation	Thomas Kurosu (NASA Jet Propulsion Laboratory)
	14:45	15:00 Status of GEMS UV Index Algorithm	Hana Lee, and Jhoon Kim (Yonsei Univ.)
15:00	15:30	Coffee Break	
		Status of International mission	
	15:30	15:45 Status of TEMPO	Kelly Chance (Harvard-Smithsonian Center for Astrophysics)
	15:45	16:00 TEMPO trace gas algorithms: Status, validation, and synthetic products	Chris Chan Miller (Harvard-Smithsonian Center for Astrophysics)
	16:00	16:15 Test data set generation for S4 verification and first results	Yoon Jung Choi (Max Planck Institute for Chemistry)
	16:15	16:30 First SO2 and HCHO results from SSP/TROPOMI	Michel Van Roozendaal (BIRA-IASB)
16:30	17:00	Coffee Break	
	17:00	17:15 First result of TROPOMI (via Webex)	Pepijn Veefkind (KNMI)
17:15	18:00	Break Out Discussion	
17:15	18:00	Tutorial Lecture : Tessellation of Satellite Data	Thomas Kurosu (NASA Jet Propulsion Laboratory)
October 3 rd (Wed.)			
	9:30	12:00 Individual Group Discussion	

Poster Session List - 90 (W) cm * 120 (H) cm

1	Tropospheric nitrogen dioxide retrieval from the Chinese Environmental trace gas Monitoring Instrument and the ground-based validation	Chengxin Zhang(University of Science and Technology of China, USTC)
2	Formaldehyde retrieval from the Chinese Environmental trace gas Monitoring Instrument and the ground-based validation	Wenjing Su (University of Science and Technology of China)
3	Status of GEMS - Calibration	Mina Kang and Mijin Eo (Ewha Womans Univ.)
4	Status of GEMS polarization correction algorithm	Haklim Choi (Kyungpook National Univ.)
5	Status of GEMS Cloud Algorithm	Min-Jae Kwon (Ewha Womans Univ.)
6	Status of GEMS Surface Reflectance Algorithm	Mikyung Choi (GWNU)
7	Status of GEMS Aerosol Algorithm	Sujung Go(Yonsei Univ.)
8	Status of GEMS Ozone Algorithm	Kanghyun Baek and Daegeun Shin (Busan National Univ.)
9	Status of GEMS NO2, SO2 Retrieval Algorithm	Junsung Park and Jiwon Yang (Pukyong Nat'l University)
10	Status of GEMS HCHO and CHOCHO Algorithm	Hyeong-Ahn Kwon (Seoul National Univ.)
11	Status of GEMS UV Index Algorithm	Hana Lee (Yonsei Univ.)
12	Nitrogen Dioxide Profiles Construction for Air Mass Factor Calculation in Urban Area	Kyoung-Min Kim (Yonsei Univ.)
13	Air quality forecasts via data assimilation techniques over Northeast Asia during KORUS-AQ	Jin-Heuk Yu (GIST)
14	Status of GEMS Synthetic Data generation	Ebony Lee (Ewha Womans Univ.)
15	GEMS Status: Potential reference datasets for nearly real-time(NRT) validation	D.-K. Kim, Yesol Cha and S. Park (UNIST, SNU)
16	Estimation of ground-level PM2.5 over Korean Peninsula using GOCI aerosol product and a machine learning method	Yeseul Cho (Yonsei Univ.)
17	A concept of a small satellite UV/visible imaging spectrometer optimized for the tropospheric NO2 measurements in air quality monitoring	Tamaki Fujinawa (Tokyo Institute of Technology)



- The closest exit of Gongdeok Station to the hotel is Exit 8.
- The closest exit of Gongdeok Station to the Jokbal zone is Exit 5.