

## TRS workshop on photochemical air pollution

The TRS annual science workshop was held online on 19th and 22nd January 2021. The project PC, Prof. Tao Wang, Co-PIs, and students and postdocs involved in the project, attended the two-day event. The project members reported research findings obtained in the past year, and discussed integration of research work from each core area and collaboration among the project teams. The next stage work plan was also discussed.

### The science workshop program

<b>Jan. 19 (Tuesday)</b>			
<b>Time</b>	<b>Speaker</b>	<b>Topic</b>	<b>Chair</b>
9:00-9:10	Prof. Tao Wang	Welcome Remarks and overview	Prof. T. Wang
<i>Core 1 emissions studies (25 min talk + 5 min Q&amp;A)</i>			
9:10-09:40	Dr. Yanli Zhang	The latest progress on biogenic emissions	Dr. Yanli Zhang
09:40-10:10	Yanan Wang	HONO emissions from natural and artificial soils: parameterization and its application in model	
10:10-10:40	Jianing Dai	Impact of Oceanic Emissions on Ozone and PM2.5: The Important Role of HONO and ClNO <sub>2</sub>	
10:40-11:00	Discussion on the progress of Core Area 1 and future plan		
<i>Core 5 policy implementations (25 min talk + 5 min Q&amp;A)</i>			
11:00-11:30	Dr. Xuguo Zhang	Is it worth spending billions of dollars in NO <sub>x</sub> control? From synergistic health co-benefits perspective.	Dr. Peter Louie
11:30-12:00	Yi'ang Chen	Development and application of a hybrid LSTM-3DVAR method for the improvement of PM2.5 forecast	
12:00-14:00	Break		
<i>Core 5 urban modelling (25 min talk + 5 min Q&amp;A)</i>			
14:00-14:30	Prof. Tao Wang/Dr. Yiming Liu	Ozone study during the COVID-19	Dr. Peter Louie
14:30-14:50	Dr. Peng Wang	Secondary aerosols responses on emissions reductions	
14:50-15:30	Discussion on the progress of Core Area 5 and future plan		

<i>Core 4 urban modelling (25 min talk + 5 min Q&amp;A)</i>			
15:30-16:00	Dr. Chun-Ho Liu/Lan Yao	Study of the Transport Processes over Hong Kong Downtown	Prof. Guy Brasseur/ Dr. Yuting Wang
16:00-16:30	Dr. Yuting Wang	Multi-scale modelling for air pollution in Hong Kong	
16:30-17:00	Discussion on the progress of Core Area 4 and future plan		

<b>Jan. 22 (Friday)</b>			
<i>Core 3 field study (20 min talk + 5 min Q&amp;A)</i>			
<b>Time</b>	<b>Speaker</b>	<b>Topic</b>	<b>Chair</b>
9:00-9:30	Prof. Tao Wang/Xiang Peng	Reactive chlorine and bromine chemistry in the polluted region	Prof. Tao Wang
9:30-9:55	Men Xia	Toward an improved parameterization of N <sub>2</sub> O <sub>5</sub> uptake on marine aerosols	
9:55-10:20	Penggang Zheng	Characteristic of oxygenated organic molecules in Hong Kong: source, formation and impacts	
10:20-10:35	Jianing Dai	A modeling study during the field campaign in 2018	
10:35-10:55	Men Xia	2020 field observations of reactive chlorine and bromine in Hok Tsui	
10:55-11:15	Zhouxing Zou	OH radical study in 2020 field study	
11:15-11:40	Qi Yuan	Field observation of VOCs and OVOCs at Hok Tsui in 2020	
11:40-12:05	Dr. Yi Chen/ Yan Tan	Chamber simulation of nocturnal isoprene oxidation and preliminary result of 2020 HT field campaign	
12:05-12:30	Discussion on the progress of Core Area 3 and future plan		
12:30-14:00	Break		
14:00-14:25	Yik-Sze Lau	Photooxidation study by Potential Oxidation Mass (PAM) reactor	Prof. Hai Guo/ Dr. Xiaopu Lyu
14:25-14:50	Enyu Xiong	Preliminary analysis on VOCs at Hok Tsui	
14:50-15:15	Yunxi Huo	Observation of secondary organic aerosol formation in a coastal area of Hong Kong	
15:15-16:00	Discussion on the progress of Core Area 3 and future plan		