



4th Annual Meeting of the Australia-China Centre for Air Quality Science and Management

Thursday, 22nd November – Saturday, 24th November 2018

Venue: Curtin St George's Terrace, 139 St Georges Terrace, Perth (Central Business District), Western Australia

Program

Wednesday, 21st November 2018

(Venue: Curtin University, Building 104, Room 101, Kent Street, Bentley, Perth, WA)
([link to Bentley campus map](#))

10:00am – 11:10am

SHORT PRE-CONFERENCE WORKSHOP: “Future Proofing Your Skills (for HDR students)”

Short description: This workshop will give an introduction the Australian Technology Network (ATN) and the e-Grad School offerings, with the focus on how to develop your career skills.

10:00-10:20 am: *Introduction to ATN network and the e-Grad School offerings (Paige to present)*

10:20-11:10 am: *A short workshop on an area of interest for students – Develop Your Career Skills (an entrée to e-Grad Modules)*

All HDR students are also invited to attend the 2.10pm Session on publishing in high impact journals below

1:00pm – 3:00pm

SHORT PRE-CONFERENCE WORKSHOP: “Publishing in High Impact Journals (for HDR Supervisors)”

Short description: This workshop will provide a tips on getting published in high impact journals. Professor Lidia Morawska has been an Associate Editor of the journal *Science of the Total Environment* for more than ten years; editor of numerous special issues, as well as member of the Editorial Board of several journals. The presentation will cover the general aspects of what constitutes a good paper, followed by a more detailed discussion on the individual components of the paper (abstract, introduction, methods, results, discussion and conclusions). Other aspects will also be discussed, such as: how to be your own reviewer, honesty and inclusiveness.

1:00-1.15 pm *Introduction to the ATN network (Paige Hilditch-Maguire)*

1.15-2.10pm: *Short workshop on Supervisor Professional Development in Australia (based on the QUT experience – ESP; Paige Maguire)*

2.10-3:00pm: *Short workshop on “Publishing in High Impact Journals” (Prof Morawska, QUT)*

Thursday, 22nd November 2018

(Venue: Curtin St George's Terrace, 139 St Georges Terrace, Perth, WA)

8:30am – 8:45am

Official Opening by ACC-AQSM Co-Directors

Lidia Morawska (QUT), Fahe Chai (CRAES)

8:45am – 9:00am

Welcome to Curtin University

Prof Archie Clements (CU), Pro-Vice Chancellor Health Science, Prof Andrew Rohl (CU), Director Curtin Institute of Computation)

9:00am – 10:30am

SESSION 1: Sensors for Air Pollution Monitoring: State of the Art

Chairs: Lidia Morawska (QUT), Jian Gao (CRAES)

Presentations

Lidia Morawska (QUT) *Low-cost sensor networks and their applications*

Ben Mullins (Curtin) *A novel personal ototoxicity monitor*

Jian Gao (CRAES) *China is sensing: an unprecedented scale of application of air quality sensing technologies through the country*

Yanmin Huang, Min Yi,
Quan Bao, Huxiong
Cui (SEMC) *The progress of air quality monitoring in Shanghai, China*

Zhi Ning (HKUST) *Updates of new developments and applications of air sensor in air and emission*

Discussion

10:30AM – 11:00AM

MORNING TEA IN THE BOARDROOM

11:00am – 12:30pm

SESSION 2: Sensors: Big Data and Application to Exposure and Health Assessment; Citizen Science

Chairs: Gavin Pereira (CU), Rohan Jayaratne (QUT)

Presentations

Ivan Hanigan (USyd) *CAR Exposure Program: data sharing and analysis technology?*

Gavin Pereira (CU) *A proposal to develop a national high spatial resolution model for daily fine particulate matter and its sources in Australia*

Ivan Hanigan (USyd) *Exposure assessment and estimating premature mortality attributable to anthropogenic sources of PM_{2.5} in Australia using ground-based monitors, chemical transport models and satellite imagery*

Rohan Jayaratne (QUT) *Application of KOALAs for exposure assessment and citizen science*

Zhi Ning (HKUST) *An integrated micro-sensor and modelling tool for microenvironment monitoring and personal exposure assessment*

Discussion

12:30PM – 1:30PM

LUNCH IN THE BOARDROOM

1:30pm – 2:30pm

SESSION 3: Control of Air Pollution in China: sources and energy transition

Chairs: Zhi Ning (HKUST), Ivan Hanigan (CU)

Presentations

Jian Gao (CRAES) *The Development of PM_{2.5} Source Apportionment and Its Application in Air Pollution Control in China*

Wen-jie Zhang (CRAES) *Characteristics of PM_{2.5} Chemical source profiles of Coal Burning and Industrial Processes in China*

Yun Shu (CRAES) *Development of NO_x reduction for stationary source in China*

Discussion

2:30pm – 5:00pm

SESSION 4: PM_{2.5}: Source Relationships with other pollutants and impacts

Chairs: Hai Guo (HK PolyU), Alison Reid (CUT)

Presentations

Alison Reid (CUT) *Exploring the relationship between particle number and mass concentrations and health effects from diesel emissions*

Nairui (Conan) Liu (QUT) *The relationship between social development and citizens' exposure to ambient particulate matter pollution*

Wei Wang (AJU) *Distribution Characteristic of Negative air ion and PM_{2.5} concentration in indoor green planting*

Nairui (Conan) Liu (QUT) *Big Question 3: Severe air pollution episodes*

Discussion

5:30PM

BUS TRIP THROUGH KINGS PARK AND ALONG THE RIVER TO DINNER

6:30PM

DINNER – DUTCH TRADING COMPANY VICTORIA PARK

Friday, 23rd November 2018

(Venue: Curtin St George's Terrace, 139 St Georges Terrace, Perth, WA)

9:00am – 10:30am

SESSION 5: Biomass Burning and its Impacts

Chairs: Sunling Gong (CMA), Tao Wang (HK PolyU)

Presentations

Jialiang Feng (SHU) *Impact of biomass burning on the air quality of the Yangtz River Delta region of China*

Sunling Gong (CMA) *Impacts of Bio-mass Burning on Air Quality in China*

Nicky Yun Fat Lam (CityU) *Improving spring-time air quality forecast in Hong Kong*

Kathryn Landwehr (CU) *Cytotoxicity of Diesel vs Biodiesel Exhaust*

Discussion

10:30AM – 11:00AM *MORNING TEA IN THE BOARDROOM*

11:00am – 12:30pm

SESSION 6: Photochemical Smog Formation and Organic Aerosols

Chairs: Tong Zhu (PKU)

Presentations

Xiaopu Lyu (HK PolyU) *Global perspective of tropospheric ozone: long-term trends, formation mechanisms and control strategies*

Tong Zhu (PKU)	<i>The Potentially Important Contribution of Gas-phase Oxidation of Naphthalene and Methylanthalene to Secondary Organic Aerosol during Haze Events in Beijing</i>
Hai Guo (HK PolyU)	<i>High-resolution analysis of vehicle-related organic aerosols and secondary organic aerosols in the atmosphere of Hong Kong with the application of TAG-GC-ToF-MS</i>
Tao Wang (HK PolyU)	<i>Reactive nitrogen and impact on air quality in China</i>

Discussion

12:30PM – 1:30PM

LUNCH IN THE BOARDROOM

1:30pm – 2:30pm

SESSION 7: Pollution and its Transport: Remote sensing, Mapping and Modelling

Chairs: Arthur Grieco (DWER), Jonathan Yuan (NSYU)

Presentations

Sean Lam (DWER)	<i>Utilising COPERT Australia and CCAM-CTM to investigate transport related pollution</i>
Arthur Grieco (DWER)	<i>Using a LiDAR to detect dust plumes</i>
Vahid Rostampour (DWER)	<i>Investigation of industrial emissions using combined remote sensing and ambient air monitoring data</i>
Jonathan Yuan (NSYU)	<i>Spatiotemporal Variation and Potential Sources of Atmospheric Speciated Mercury at Three Islands in South China Sea and Taiwan Strait: Regional Emissions and Long-range Transport</i>

Discussion

2:30PM – 3:00PM

AFTERNOON TEA IN THE BOARDROOM

3:00pm – 4:30pm

SESSION 8: New Initiatives of ACC-AQSM

Panel: Fahe Chai (CRAES), Lidia Morawska (QUT), Tong Zhu (PKU), Ben Mullins (CU), Hai Guo (HK PolyU), Tao Wang (HK PolyU), Arthur Grieco (DWER), Zhi Ning (HKUST)

Presentations

Discussion

4:30pm – 6:30pm

Executive Committee Meeting in the Boardroom

6:30PM

DINNER – THE WINDSOR HOTEL, SOUTH PERTH (CATCH THE FERRY FROM ELIZABETH QUAY TO THE MENDS STREET JETTY)

Saturday, 24th November 2018

8:30am – 5:30pm

RESEARCH VISIT 2: Rottnest Island Marine/Background Aerosol Monitoring Trip