



Conference Program

Date: 2 September, 2019

Program is subject to change

SUNDAY – 15 SEPTEMBER 2019

Special Interest Group Workshops

0830-0900	SIG Workshop and Early Bird Conference Registration QT Queenstown - Level 7
0900-1700	Odour SIG Workshop – QT Queenstown Level 7 - Dart Room
1300-1700	Air Quality and Health SIG Workshop – QT Queenstown Level 7 - Rees Room
1430-1730	Drones and Air Quality Workshop – QT Queenstown Level 7 - Von Room

Reference #	POSTER PRESENTATIONS	Author
1	Investigation of a Low-cost Optical Sensor for use as a Personal Intrinsically Safe Dust Monitor in Underground Coal Mines.	Grant Kassell
2	Analysis of Air Quality Data with Openair Package - Case Studies for New Zealand	Christopher Bender
3	Computational Speedups in CALPUFF	Chris Simpson
4	Designing and Delivering 100% Data Capture - Insights into a Proven Failsafe Environmental Monitoring System	Nicholas Dal Sasso
6	What's Happening in the New Zealand Atmosphere	Sally Gray
7	Development of a Next Generation Regional Air Quality Model in Western Australia	Constance Dewan
8	In Service Emissions Testing in Australia and New Zealand	James Forrest
10	Assessing Traffic Related Emissions for Roadside Developments	Ali Naghizadeh
11	The Environmental Health Impacts From Waste-to-energy Technologies: A Critical Review Of The Literature	Dr Thomas Cole-Hunter
12	Detection of Landfill Gas Emissions Using Drones	Andrew Martin
13	Selection of Meteorological Year for Air Quality Impact Assessments	Varun Marwaha

MONDAY, 16 SEPTEMBER 2019			
Air quality health effects and current monitoring methods: understanding the extent and impacts of air quality on human health.			
0730-0820	Conference Registration Rydges Queenstown - Level 4		
CONFERENCE OPENING SESSION – Coronet Room			
0830-0840	Traditional Maori Welcome - Mihi Whakatau		
0840-0845	Welcome and Housekeeping - Master of Ceremonies		
0845-0850	Conference Opening - Society President		
PLENARY SESSION 1			
0850-0935	Emissions and Chemistry of Air Pollution in London, Beijing and Delhi: A Tale of Three Cities Professor James Lee <i>Research Fellow - National Centre for Atmospheric Science (NCAS), University of York, UK</i>		
PLENARY SESSION 2			
0935-1020	From Top to Bottom: US EPA Efforts to Bridge Air Quality Measurements from Space to Street Corners Luke Valin <i>Research Scientist – US EPA Office of Research and Development - USA</i>		
1020-1035	MORNING TEA AND EXHIBITION		
INVITED SPEAKER SESSIONS			
1035-1100	Session 1	Coronet Room	Remarkables Room
		How will new low cost air quality sensor technologies be regulated and approved for use within the EU Air Quality Directive? Michel Gerboles <i>European Reference Laboratory for Air Pollution, European Commission, Belgium</i>	The changing geographies of Children’s air pollution exposure Dr Jennifer Salmond, University of Auckland
1100-1125	Session 2	How might traditional and new air quality monitoring methods work synergistically to provide better air quality information Prof David Williams, University of Auckland	A Review of the Australian Air Quality Standards for Sulfur Dioxide, Nitrogen Dioxide & Ozone Dr Paul Boulter
CONCURRENT PAPER PRESENTATIONS			
	CONCURRENT PAPERS 1A Low Cost Sensors Coronet Room	Air Pollution Mitigation Using Passive Techniques in the Built Environment FACE TO FACE & WEBINAR Wakatipu Room – Level 5	CONCURRENT PAPERS 1B Modelling Remarkables Room
1125-1140	Experience of Global Small Sensor Co-Location Comparison Studies and Applications with Aqmesh Nicholas Dal Sasso	Presented in collaboration with CAR (Centre for Air pollution, energy & health Research) 1. Integrating Passive Controls in the Urban Environment Planning Process, Research and Practice Asst. Prof. John Gallagher, Trinity College and Assoc. Prof. Max Zhang, Cornell University 2. The Potential for Green Infrastructure to Reduce Exposure to Air Pollution in Cities Dr Jennifer Salmond, University of Auckland 3. Green Infrastructure: How it Fits within Urban Spaces Dr Paul Osmond, University of New South Wales	Modelling Hourly Real-world Emissions From a Microsimulation Traffic Model for High Spatial Resolution No2 Concentrations using the Rapidair Dispersion Model Dr Scott Hamilton
1140-1155	Pushing Low-cost Particle Sensor Limits - Performance in Clean Ambient Environments Dr Tomonori Hu		Quantifying Global Emission Sources Dr Robyn Butler
1155-1210	How Good is This Lower Cost Sensor - Aqt 420 Comparison in Wellington Sally Gray		The Influence of the Adj_u* option on AERMOD Dispersion Characteristics for Meteorological Data-sets. Sophie Matera
1210-1225	Applications of Passive Samplers to Determine Vocs Dr Robert Symons		CALPUFF and AERMOD Model Sensitivity to Meteorological Inputs – Comparison Study Tracy Freeman
1225-1240			

1240-1330	LUNCH		
	CONCURRENT PAPER PRESENTATIONS		
	CONCURRENT PAPERS 1C New Monitoring Methods Coronet Room	CONCURRENT PAPERS 1D Wood Smoke Wakatipu Room – Level 5	CONCURRENT PAPERS 1E Modelling Remarkables Room
1330-1345	Seasonal Isoprene Mole Fraction Measurements: Monitoring and Analysis in Remote Tropical Australia Dr Rebecca Wilson	Estimating Tasmanian Winter-time Population Exposure To PM2.5 Using a Two-parameter, Empirically-based Method Dr John Innis	Dispersion Modelling Using One-minute Meteorological Data Versus Standard One-hour Average Meteorological Dataset for Assessment of Transient Odour Impacts Dr Iain Cowan
1345-1400	Chemical Composition and Sources of Fine Particle Air Pollution in Major Asian Cities. Prof David Cohen	Black Carbon Emissions from Residential Wood Burning Paul Crimmins	Broiler Shed Odour Modelling Sensitivity Analysis Tracy Freeman
1400-1415	Dust Storm event of February 2019 in Central and East Coast of Australia and evidence of Long-range Transport to New Zealand and Antarctica Dr Hiep Nguyen Duc	Ultra-low Emission Burners - A Catalyst for Innovation! Dr Steven Pearce	Comparison of Recent AERMOD Versions and CALPUFF to Determine Variance in Assessment Outcomes for Surface Based Emissions Dr Iain Cowan
1415-1430	Comparison of Modelled Atmospheric Nitrogen Oxides with Satellite Concentration Measurements for Tehran Nasimeh Shahrokhi	An Online Tool to Guide Orchardists Outdoor Burning Activities Dr Kathleen Kozyniak	Aerosol Formation Events in Auckland Dr Guy Coulson
1430-1445	Monitoring Airborne Particulate, Black Carbon, PAH, Allergen and Microbial Exposures in Asthmatic Kids Prof Steve Chillrud	Inverse Modelling to Quantify Fire Emissions Dr Martin Cope	Spatial Variation of Peak-to-mean Ratios for Wake-affected Emission Sources Danny Craggs/Evan Smith
1445-1500	Long-term Assessment of Beta Attenuation Monitoring for Particulate Matter (PM2.5) in Victoria Jason Choi		
1500-1515	Nitrogen Oxides (NOx) in the Air at Cape Grim, Tasmania Prof Ian Galbally		

1515-1545 AFTERNOON TEA AND EXHIBITION			
CONCURRENT PAPER PRESENTATIONS			
	CONCURRENT PAPERS 1F New Monitoring Methods Coronet Room	CONCURRENT PAPERS 1G Wood Smoke Wakatipu Room – Level 5	CONCURRENT PAPERS 1H Modelling – Gral Remarkables Room
1545-1600	Teledyne Tapi T640 Pm Mass Monitor Field Trial in the Act Markus Froehlich	Recent Bushfire Smoke Intervals in Tasmania, with an Emphasis on the 2019 January - February Impacts Dr John Innis	Performance of Gral And AERMOD in a Southern Australian Setting David Rollings
1600-1615	Evaluation of an Optical PM Measurement Method Compared to Conventional PM Measurement Methods Dr Stephen Toner	Multi-wavelength Microaeth Data Provide Tracer Of Ground Level Air Pollution Impacts of Long Range Transport of Wildfire Emissions in NYC in November 2018 Prof Steve Chillrud	Use of CFD Module of Gral for Modelling Flowedgus and Dispersion Around and Over Structures Andrew Martin
1615-1630	Open-path Ftir Spectroscopy and Measurement of Gaseous Species Important to Urban Air Quality. Dr Frances Phillips	Measured Plume Rise of a pyrocumululus Cloud Dr Matthew Pickett	The Influence of Signage on Windfields and Pollutant Dispersion using Gral Kristen Clarke
1630-1645	A Comparison Between a TAPI T640X, TEOM 1405-DF and reference samplers for the measurement of Pm ₁₀ and Pm _{2.5} at an urban location in Brisbane Esther O'Brien	Automated Identification and Forecasting of Smoke Impacts from Rapidly Evolving Wild Fires Dr Martin Cope	Results of a Micro-simulation Dispersion Model Study of Portal Emissions Using Gral Francine Manansala
1645-1700	A Multiwavelength Absorption Black Carbon Instrument Dr Madhura Manohar	Smoke Impacts During a Peat Fire in South West Victoria Dr Paul Torre	Sub-hourly Modelling of Tunnel Portal Emissions Utilising the Gral Dispersion Model Sam Putland
1700-1715	Evaluation of PM Instruments in New Zealand Teresa Aberkane	Acute Changes in Heart Rate Variability and Cardiac Repolarization Following Controlled Exposure TO Cookstove Air Pollution: The Subclinical Tests of Volunteers Exposed to Smoke (stoves) Study Thomas Cole-Hunter	Use of Gral to Determine Acceptable Building Distance and Building Height for Proposed Development Around Ventilation Outlets for Road Tunnels Russ Francis
1715-1730	Polar Nephelometer Exploration of Air Quality Over a Rural Station in North India Grant Kassell	Some examples of how a woodheater/woodburner can smoke out a neighbour, and bloody hell why is it so hard to fix the Problem? Dr John Innis	A Comparison Between the Performance of Gral and CALPUFF in a Complex Urban Environment David Rollings
1730-1900	WELCOME RECEPTION – Exhibition Hall – Level 5		
1900	EAQP Networking Dinner/Drinks – Lone Star Hotel		

TUESDAY, 17 SEPTEMBER 2019

Creating sustainable communities:

new technologies, changing urban design, modal shift and engaging communities and motor vehicles.

0700-0830	TRANSPORT SIG WORKSHOP BREAKFAST - QT Queenstown - Von Room		
0800-0830	Conference Registration - Coronet Room		
CONFERENCE OPENING SESSION			
0830-0840	Welcome and Housekeeping - Master of Ceremonies		
0840-0850	<p>Opening of Day 2 Jo Gascoigne – Director, Natural and Built System <i>Director of the Ministry for the Environment</i></p>		
PLENARY SESSION 1			
0850-0935	<p>London's Air Pollution Story: From the Great Smog to Zero Emission City Mr Elliot Treharne <i>Head of Air Quality at the Greater London Authority, UK</i></p>		
INVITED SPEAKER SESSION			
0935-1000	Session 1	Coronet Room	Remarkables Room
		<p>Disruptive transport technologies. Are these key to tackling transport emission impacts? Greg Nelson, Principal Advisor Vehicle Strategy, NZ Transport Agency</p>	<p>How can we effectively integrate land-use and transport systems to create sustainable cities? Professor Mark Stevenson, Urban Transport and Public Health, University of Melbourne</p>
1000-1025	Session 2	<p>How can 'smart cities' accelerate improvements in air quality? Dr Nick Talbot, RIMU, Auckland Council</p>	<p>How effective are existing guidelines & tools at assessing health risks of new urban development? Dr Christine Cowie, University of New South Wales, Affiliate, Centre for Air pollution, Energy and Health Research</p>
1025-1050	MORNING TEA AND EXHIBITION		
CONCURRENT PAPER PRESENTATIONS			
	CONCURRENT PAPERS 2A Transport Coronet Room	CONCURRENT PAPERS 2B Land-use planning and monitoring Wakatipu Room – Level 5	CONCURRENT PAPERS 2C Indoor Air Remarkables Room
1050-1105	Assessment of the Continuing Effectiveness of Emission Reduction Through the Replacement of Catalytic Converters on LPG-fuelled Vehicles. Prof Hai GUO	Developing Clean Air Zones for Liveable Cities. Dr Guy Hitchcock	Pm2.5 In The Home – Using Sensors to Apportion Indoor & Outdoor Sources Ayushi Kachhara
1105-1120	Ventilation on Demand: Smarter Road Tunnel Ventilation. Dr Jason Shepherd	Land Use and Air Quality in New Zealand Louise Wickham	Sources of Air Pollution in NZ Homes and the Impact of Ventilation/infiltration Dr Perry Davy
1120-1135	Determining the Impact of Gross Emitting Vehicles. Jeff Bluett	Regulatory Requirements and Odour Management: The Innovative Odour Guideline of Western Australia. Philippe Najean	Evaluation of Portable Air Cleaners to Improve Residential Indoor Air Quality During Biomass Burns. Dr Amanda Wheeler
1135-1150	PEMS Testing in New Zealand. Dr Gerda Kuschel	NSW Air Quality Monitoring - from Long Term Trend Monitoring to Integrated Urban Services Matthew Riley	Reduction of to-15 Method Detection Limits to Meet Investigation Levels for Trichloroethene in a Residential Scenario. Dr Laurence Hearn
1150-1205	A National Model of Nitrogen Dioxide From Road Traffic. Dr Ian Longley	Future Directions for Air Science Program in South Australia. Dr Pushan Shah	Some Tasmanian work on measuring the penetration of ambient smoke into buildings. Dr John Innis
1205-1220	Human Exposure to Harmful Contaminants from Vehicles Recent Advances. Deborah Ryan	The Use of Guidance Material to Assist in Odour Identification in the Field. Christina He	Indoor Air Quality: What is the issue, and what is the solution? Dr Bill Trompeter

LUNCH			
Poster Presentations – Authors present at poster area			
Thomson Environmental Systems – Clancy’s Room			
Join Thomson Environmental Systems and special guest, Teledyne API Senior Development Engineer & Chemist Dr Stephen Toner, who will present a Q&A Session on USEPA Approvals and current USEPA research into monitoring technologies.			
PLENARY SESSION 2			
Creating Sustainable, Resilient, Healthy Communities: Accident or Design?			
Professor Simon Kingham			
<i>Researcher -The University of Canterbury, NZ; and Chief Science Adviser for the Ministry of Transport, NZ</i>			
INVITED SPEAKER SESSIONS			
1400-1425	Session 3	Coronet Room	Remarkables Room
		Can modal shift deliver tangible emission reductions? Dr Caroline Shaw, Department of Public Health, University of Otago	How can we actively engage communities to achieve ‘ownership’ of their local air quality and help drive solutions to air quality issues? Dr Ian Longley, Programme Leader – Atmospheric Environment, Health and Society, NIWA
1425-1450	Session 4	What role can active modes play in creating liveable urban communities? Kathryn King, Urban Mobility Manager, NZTA	Are there more effective ways to communicate air quality science and promote understanding to our communities? A/Prof Melissa Hart – University of NSW
AFTERNOON TEA			
CONCURRENT PAPER PRESENTATIONS			
	CONCURRENT PAPERS 2D Transport Coronet Room	CONCURRENT PAPERS 2E Land-use Planning Wakatipu Room – Level 5	CONCURRENT PAPERS 2F Engaging Communities Remarkables Room
1515-1530	Patterns of Monthly Variation In Urban Ambient Nitrogen Dioxide Observed in the National Monitoring Network, Plus Implications for Exposure Assessment. Dr Ian Longley	Traffic pollution near childcare centres in Melbourne. Clare Walter	Communicating Health Impacts of Air Pollution and Establishing Exposure Levels Kirsty Tanner
1530-1545	A cost-effective way to estimate travel-time exposure to no2. Ayushi Kachhara	A Regulatory Approach to Air Quality Monitoring in a mixed use Industrial Area. Reece Irving	Air Quality in Sydney: Findings From The Publicly Driven Research of the Clean Air and Urban Landscapes Hub. Prof Clare Murphy (Paton-Walsh)
1545-1600	Biking, Potential Inhaled Dose, and Cardiovascular Indicators: Pilot Results from the New York City Biking and Breathing Study. Prof Steve Chillrud	Health Impacts of Road Dust in Northland, New Zealand. Louise Wickham	Reducing Diffuse Air Pollution in Smaller New Zealand Communities. Charles Kirkby
			Measurement
1600-1615	Air Pollution, Energy, and Health in The Pacific Island Countries: A Low-cost Solution for Evidence-based Clean-energy Transition. Dr Thomas Cole-Hunter	Industrial Odour in Brooklyn, Solutions To a Complex Regulatory Problem. Chris Bydder	Alumina Refinery Point Source (cooling Tower Vent) Emission Measurement By Open Path Fourier Transform Infrared Spectroscopy Amanda Tilbury
1615-1630	Marginalised Communities and Air Pollution from Natural and Human Sources. Nathan Cooper	A Snapshot of Air Quality Issues Across the Otago Region, a Local Perspective. Dr Emily Wilton	The Reconstruction of the Historic Record (1896-present) of Tropospheric Ozone Prof Ian Galbally
1630-1645		Energy from Waste in the 21 st Century: When Garbage In is not equal to Garbage Out Damon Roddis	
1645-1715	Society Annual General Meeting – Coronet Room		
1830 to late	GALA DINNER & INNOVATION & EXCELLENCE IN AIR QUALITY AWARDS		

WEDNESDAY, 18 SEPTEMBER 2019			
Assessing and evaluating impacts from specific sources on people and communities: including amenity, industry and shipping.			
0830-0900	Conference Registration		
0830-0840	Welcome and Housekeeping Master of Ceremonies		
PLENARY SESSION - Coronet Room			
0900-0930	Working Together Toward a Low Carbon Future Christine Rigby Vancouver Fraser Port Authority		
0930-1000	PANEL SESSION: THE FUTURE OF PORT AND SHIPPING EMISSIONS Christine Rigby – Vancouver Fraser Port Authority Rosie Mercer - Ports of Auckland Jenny Simpson – Tonkin & Taylor		
1000-1030	MORNING TEA AND EXHIBITION		
CONCURRENT PAPER PRESENTATIONS			
	CONCURRENT PAPERS 3A Odour Coronet Room	CONCURRENT PAPERS 3B Shipping and Ports Wakatipu Room – Level 5	CONCURRENT PAPERS 3C Minerals and Dust Remarkables Room
1030-1045	Fasten your Seatbelt a zero tolerance approach to Odour Regulation David Stagg	A Critical Review of Emission Estimation Techniques for three International Shipping Port Studies Grace Formentin	Measurements of Air Quality at a Hydraulic Fracturing Site in the Surat Basin, Queensland Melita Keyword
1045-1100	Chemical Profiling of Odour Sources At A Wastewater Treatment Plant using Sift-ms Dr Diandree Padayachee	Sustainable Ports: Local Air Quality Effects and the Feasibility of Installing Emission Reduction Technologies at the Port of Auckland Dr Robyn Butler	Coal Mine Particulate Matter Emission Factor Validation Russ Francis
1100-1115	A Study of Removal and Treatment Methods of Sewer Odour – A Good THING to have well Managed Michele Dyer	Review of Modelling Methods for Flare Emissions and their Impacts on the Assessment of Downwind Air Quality Impacts and Aviation Hazards Kirsten Lawrence	Quarry Dust and Respirable Crystalline Silica, the Christchurch Experience Richard Chilton
1115-1130	The Assessment of Ammonia Emissions from Intensive Poultry Units, a UK Perspective Matt Bevington	The role of Assurance in Reporting Air Pollution Emissions Matthew Davies	Particulate Monitoring at the Rural / Industrial Interface. Louise Wickham
1130-1145	Prediction of Odour Emissions from Sewage Pump Stations and Vents on Sewerage Mains Michelle Yu	Is It Possible to Detect Road Tunnel Stack Emissions in Ambient Monitoring Data? Dr Mark Hibberd	The New Dust Assessment Guideline for Western Australia. Constance Dewan
1145-1200	Varying Odour Emission Rates from a landfill active tipping face in Response to Wind Speed and Turbulence Michael Asimakis		Reduced Model to Calculate Wind Erosion Emissions Dr Miguel Alvarado
1200-1215	A Broad Discussion into the Undertaking of Odour Assessments in Australia from an Engineers Perspective Michael Assal		Assessment of Ambient and Indoor Asbestos in Sunshine North Jason Choi

	PLENARY SESSION - Coronet Room
1215-1245	<p>Lisa McLaren – Generation Zero</p> <p>Lisa is associated with Generation Zero, a group of young New Zealanders working to cut carbon pollution through smarter transport, liveable cities & independence from fossil fuels.</p> <p>Lisa will present an overview of Generation Zero and the impact this has had on driving change within communities, addressing the challenges the future brings.</p>
1245-1255	<p>Presentation of Conference Awards</p> <p>CONFERENCE CLOSE</p>
1255-1330	LUNCH
1330-1730	SITE VISITS / WORKSHOPS

SITE VISITS AND WORKSHOPS	
1330-1700	Site Visit 1: Lauder Atmospheric Research Station
1330-1700	Site Visit 2: Wastewater Treatment Plant and Local Winery Tour
1430-1730	Shipping & Air Emissions Workshop - Wakatipu Room