Atmospheric Dispersion Modelling
Liaison Committee (ADMLC)

Satellite-based monitoring and atmospheric dispersion modelling as complementary techniques

ADMLC Webinar, 14:00-16:30 BST, Thursday 27 May 2021

ADMLC Recent News

- **29 January**: ADMLC webinar on "Dispersion modelling in emergency response"

- **9 February**: Published revised ADMLC guidelines for the preparation of short-range dispersion modelling assessments for compliance with regulatory requirements https://admlc.com/model-guidelines/

- **24 February**: Presentation at the Dispersion Modellers User Group (DMUG) online conference, Wednesday 24 February 2021 https://iaqm.co.uk/resources/dmug/

- **17 March 2021**: Draft report on "Dense-gas dispersion for industrial regulation and emergency response" by Rachel Batt (HSE) provided to the ADMLC, currently under review and due to be published in June 2021

ADMLC Membership
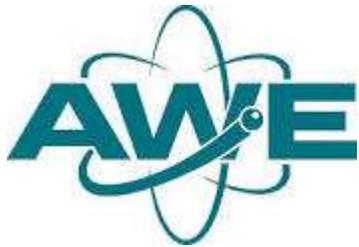
ADMLC Projects

Possible future ADMLC research projects (www.admlc.com/work):

1. Application of models to the design of monitoring networks
2. A review of model evaluation procedures
3. Importance of spatial resolution of NWP data in dispersion modelling for regulatory purposes
4. Dry/wet deposition of gases and particulates
5. Modelling of sources in an emergency
6. Fire source terms and plume rise
7. Understanding the impact of meteorological uncertainties

conference paper discusses these topics

Expressions of interest invited (deadline 30 June 2021)

ADMLC is seeking to partner with other funding agencies or self-funding research organisations on topics of mutual interest

Webinar Programme

14:00 – 14:05	**Simon Gant** (HSE, ADMLC Chair): Introduction
14:05 – 14:20	**Claire Witham** (Met Office): "Introduction to satellite data for dispersion modelling"
Environmental and source surveillance	
14:20 – 14:40	**Andrew Brown** (National Physical Laboratory): "Application of satellite air quality and greenhouse gas measurements to regulatory activities: preliminary studies" [work delivered on secondment to the Environment Agency]
14:40 – 14:55	**Dan Potts** (University of Leicester): "Smarter analysis of satellite data for air quality regulators"
14:55 – 15:05	**Roger Timmis** (Environment Agency): "Using dispersion modelling to select satellite air-quality data with optimal signal-to-noise ratios for pollutant sources"
15:05 – 15:15	**BREAK**

Webinar Programme

| Hazard prediction and incident response	
15:15 – 15:40	**Murray Purves** (Riskaware): "Space-based data for urban hazard prediction"
14:20 – 14:40	**Scott Bradley** (DTRA) and **Joel Howard** (Dstl): "Comparison of SCIPUFF predictions to SO_2 measurements from instruments on the MetOp-A, MetOp-B, Aura and Soumi satellites from the 2016 fire at Al-Mishraq"
16:05 – 16:30	**DISCUSSION**
16:30	**CLOSE**

Webinar Programme

Aims and motivation:

- To review current and upcoming satellite monitoring techniques
- To explore how satellite data and dispersion modelling can be used together to give better information on air quality and hazardous releases
- To share knowledge and experience
- To discuss possible improvements in practises and joint working
- To improve collaboration across the UK and internationally

Webinar is being recorded on video
Slides and video will be made available on the ADMLC website

- Please mute your microphone if you're not speaking
- Please add any comments/questions for the discussion session in the **chat window**
- Please **raise your hand** if you would like to speak in the discussion session
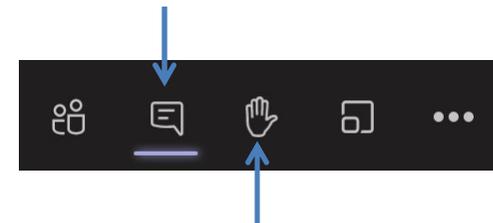
Thank you

Thanks to ADMLC Secretariat for organising this webinar

- Justin Smith and Peter Bedwell (PHE)

We would welcome feedback: admlc@phe.gov.uk

- What worked well?
- What could we improve?
- Breakout networking sessions during the coffee break?
- Future ideas for ADMLC seminars?