

# SPHERES Newsletter #2 – February 2017

Welcome to the second edition of the SPHERES newsletter which aims to enhance communication and partner engagement across the DTP. Your feedback on any matter is welcome.

## News



*Haze day at the 300 m meteorological tower at the measurement site.*

### **DTP students join up with Chinese researchers to assess air quality in Beijing.**

China is one of the most rapidly developing countries in the world, producing nearly a quarter of the planet's goods. This requires a large amount of industrial development in the country, which leads to abnormally levels of air pollution.

On the 1<sup>st</sup> November 2016 researchers from over ten UK institutes, including SPHERES DTP students from the Universities of Leeds and York, joined Chinese colleagues from the Institute of Atmospheric Physics, Chinese Academy of Science, Beijing to run the first of two 6-week campaigns to assess air quality in Beijing.

DTP students Robert Woodward-Massey and Ellie Slater from the School of Chemistry at the University of Leeds, together with their supervisors Professor Dwayne Heard and Dr Lisa Whalley and postdoc Dr Jack Ye, made measurements of key chemical intermediates. The measurements included the hydroxyl (OH) radical - a central player in the chemical transformation of Beijing's emissions into secondary products, for example ozone and secondary organic aerosol, a component of particulate organic matter. Their work is supported by modelling efforts from Professor Dominick Spracklen and Dr Graham Mann of the School of Earth and Environment in Leeds.

Meanwhile, DTP students Freya Squires and Will Dixon from Wolfson Atmospheric Chemistry Laboratories (WACL) at the University of York, accompanied by Professors Ally Lewis and James Lee, made measurements of volatile organic compounds (VOCs) and nitrogen oxides (NO<sub>x</sub>). Measurements of NO<sub>x</sub> and some VOCs were made at an elevation of 100 m up a meteorological tower allowing turbulent air to be sampled and pollutant flux calculated. It is hoped that this data will enable pollution sources to be accurately identified and improve Beijing's emissions inventories. Other York-based research included investigations into the composition of particulate matter and ground-based studies of VOCs.

Investigating the air quality of China's capital should give us a better understanding of the health risks the city's inhabitants are exposed to and shine a light on the risks posed to other highly polluted megacities. Our students and their teams will head back to Beijing in the summer to continue the study of the region's air quality.



*The York mobile gas chromatography laboratory (middle) and the Leeds FAGE container (right).*

### **2017 NERC DTP Managers Conference in Leeds – Date confirmed**

Every year the Directors and Managers of the 15 NERC DTPs across the country meet to share information and discuss progress with NERC. We will have the pleasure of hosting the 4th annual meeting in Leeds which will take place on 29<sup>th</sup> June at the School of Earth and Environment. By holding the event in Leeds we should be able to invite a number of local DTP colleagues to attend



## Training Update

### DTP Student Conference

The DTP student conference will take place on the 25<sup>th</sup> and 26<sup>th</sup> May 2017. The conference will include talks from 1<sup>st</sup> years, posters from 2<sup>nd</sup> years and talking posters for those who can't attend. The call for abstracts and registration details will be sent out shortly.

### Joint Careers Workshop Event with CENTA and EAO DTPs

On March 22/23 2017 we will be joining forces with the [EAO DTP](#), based in the Universities of Manchester and Liverpool, and the [CENTA DTP](#), which is a consortium of 5 midlands universities, to provide a 2-day Careers Workshop for our 3<sup>rd</sup> year students. This is our first joint training event with other DTPs and will be held in central Manchester. Day 1 will be a series of careers training workshops and surgeries, such as career options, interview skills and CV writing, followed by a networking dinner. For day 2 there the programme will consist of mock interviews, industry panels, and one-to-one appointments.

## Dates for the Diary

### Forthcoming training events:

- Atmosphere Day, March 2017.
- Careers Workshop (3<sup>rd</sup> Year Students), 22nd and 23rd March 2017, Manchester.
- Teamwork and Leadership Away Day (1<sup>st</sup> Year Students), 20th and 21st April 2017.
- DTP Annual Student Conference, 25<sup>th</sup> and 26th May 2017, University of Leeds.

## Recent DTP Student Publications

**King, O.**, Quincey, D. J., Carrivick, J. L., and Rowan, A. V.: Spatial variability in mass loss of glaciers in the Everest region, central Himalayas, between 2000 and 2015, *The Cryosphere*, 11, 407-426, doi:[10.5194/tc-11-407-2017](https://doi.org/10.5194/tc-11-407-2017), 2017.

## Alternative PhD Advice #2

**ADDRESSING REVIEWER COMMENTS** BAD REVIEWS ON YOUR PAPER? FOLLOW THESE GUIDELINES AND YOU MAY YET GET IT PAST THE EDITOR:

<p><b>Reviewer comment:</b> "The method/device/paradigm the authors propose is clearly wrong."</p> <p><b>How NOT to respond:</b> ✗ "Yes, we know. We thought we could still get a paper out of it. Sorry."</p> <p><b>Correct response:</b> ✓ "The reviewer raises an interesting concern. However, as the focus of this work is exploratory and not performance-based, validation was not found to be of critical importance to the contribution of the paper."</p>	<p><b>Reviewer comment:</b> "The authors fail to reference the work of Smith et al., who solved the same problem 20 years ago."</p> <p><b>How NOT to respond:</b> ✗ "Huh. We didn't think anybody had read that. Actually, their solution is better than ours."</p> <p><b>Correct response:</b> ✓ "The reviewer raises an interesting concern. However, our work is based on completely different first principles (we use different variable names), and has a much more attractive graphical user interface."</p>	<p><b>Reviewer comment:</b> "This paper is poorly written and scientifically unsound. I do not recommend it for publication."</p> <p><b>How NOT to respond:</b> ✗ "You #@%* reviewer! I know who you are! I'm gonna get you when it's my turn to review!"</p> <p><b>Correct response:</b> ✓ "The reviewer raises an interesting concern. However, we feel the reviewer did not fully comprehend the scope of the work, and misjudged the results based on incorrect assumptions."</p>
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## Further Information

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