



From big data analysis in the cloud to robotic pot drumming: tales from the Met Office Informatics Lab

Niall Robinson, Jacob Tomlinson, Rachel Prudden, Alex Hilson, and Alberto Arribas
Informatics Lab, Met Office, Exeter, UK (hello@informaticslab.co.uk)

The Met Office Informatics Lab is a small multidisciplinary team which sits between science, technology and design. Our mission is simply "to make Met Office data useful" - a deliberately broad objective. Our prototypes often trial cutting edge technologies, and so far have included projects such as virtual reality data visualisation in the web browser, bots and natural language interfaces, and artificially intelligent weather warnings.

In this talk we focus on our latest project, Jade, a big data analysis platform in the cloud. It is a powerful, flexible and simple to use implementation which makes extensive use of technologies such as Jupyter, Dask, containerisation, Infrastructure as Code, and auto-scaling. Crucially, Jade is flexible enough to be used for a diverse set of applications: it can present weather forecast information to meteorologists and allow climate scientists to analyse big data sets, but it is also effective for analysing non-geospatial data.

As well as making data useful, the Informatics Lab also trials new working practises. In this presentation, we will talk about our experience of making a group like the Lab successful.