



The
Geological
Society

serving science, profession & society

Janet Watson Meeting 2018: A Data Explosion: The Impact of Big Data in Geoscience

27 February – 1 March 2018

Programme

The following meeting rooms are available for ad-hoc demos and virtual fieldtrips on the following days:

DAY 1

Council Room & Arthur Holmes: 09.30 – 13.50/15.40 – 17.30

William Buckland: 09.30 – 12.50

DAY 2


Council Room & Arthur Holmes: 09.30 – 12.50/15.10 – 17.30


William Buckland: 09.30 – 12.30




DAY 3

Council Room & Arthur Holmes: 09.30 – 10.20/15.35 – 17.00

William Buckland: 09.30 – 10.20/14.20 – 17.00

Tuesday 27 February 2018	
08.30	Registration & tea, coffee & refreshments Sponsored by 
09.00	Welcome
09.10	KEYNOTE: Pixels in the cloud Ed Parsons (Google)
09.40	GeoSocial: Exploring the usefulness of social media mining in the applied natural geohazard sciences Emma Bee (British Geological Survey)
10.00	Big Data in the industry: A critical examination of modern data collection and use in engineering geosciences Oliver Dabson (CH2M)
10.20	Science and the digital revolution: data, standards and interdisciplinary integration Geoffrey Boulton (University of Edinburgh & CODATA)
10.40	Getting Legacy BGS Stratigraphic Data Ready for the Big Data Revolution Mike Howe (British Geological Survey)

11.00	Tea, coffee, refreshments and posters Sponsored by 
11.20	KEYNOTE: Data science for earth science – perspectives from industry Steve Garrett (Chevron)
11.50	Disparate E&P Big Data Impose Non-Desperate Machine Learning Methodologies Keith Holdaway (SAS Global O&G Domain)
12.10	Big data in the Geoscience: A portal to physical properties Mark Fellgett (British Geological Survey)
12.30	Building Data Science Capability Ed Evans (NDB Upstream)
12.50	Lunch and posters
13.50	KEYNOTE: The Virtual Geoscience Revolution John Howell (University of Aberdeen)
14.20	<u>VIRTUAL FIELDTRIP (Lecture Theatre)</u> Zagros and Zechestein Richard Jones (University of Durham) <u>SOFTWARE DEMONSTRATIONS</u> Seismic VR (Council Room) Phil Norlund and Laurent Duchatel/Gina Craciun (Halliburton) Osokey Stream - cloud-native seismic platform (Arthur Holmes Room) James Selvage (Osokey)
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14.50	<u>VIRTUAL FIELDTRIP (Lecture Theatre)</u> A Geological tour of the Jurassic Coast, NE England Dave Hodgetts (University of Manchester) <u>SOFTWARE DEMONSTRATIONS</u> Seismic VR (Council Room) Phil Norlund and Laurent Duchatel/Gina Craciun (Halliburton) Osokey Stream - cloud-native seismic platform (Arthur Holmes Room) James Selvage (Osokey)

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15.20	<p>Tea, coffee, refreshments and posters Sponsored by </p>
15.40	<p>KEYNOTE: Paradigm Shift Necessary for True Integrated Asset Value Maximization by Leveraging Big Data and Digital Transformation Satyam Priyadarshy (Halliburton)</p>
16.10	<p>Mining Geological Sentiment from Unstructured Text Paul Cleverley (Robert Gordon University)</p>
16.30	<p>Putting data at your fingertips: Utilising data analytics in E&P Information Management Christopher Frost (DataCo Global Limited)</p>
16.50	<p>Accessing Knowledge in Geoscience Text using Natural Language Processing Richard Jones (University of Durham)</p>
17.10	<p>Detecting Volcano Deformation in InSAR using Deep learning Pui Anantrasirichai (University of Bristol)</p>
17.30 – 18.30	<p>Wine reception</p>
<p>Wednesday 28 February 2018</p>	
08.30	<p>Registration and tea, coffee & refreshments Sponsored by </p>
09.00	<p>Welcome</p>
09.10	<p>KEYNOTE: The Role of Data Regulating the UK Oil & Gas Industry Nick Richardson (OGA)</p>
09.40	<p>Over 120 years worth of hydrocarbon exploration, an example of how legacy data can address todays challenges. Mark Fellgett (British Geological Survey)</p>
10.00	<p>Digital Transformation in the North Sea Stephen Roberts (The Oil and Gas Technology Centre)</p>
10.20	<p>Two basic applications of machine learning for rock-physics and petro-physics Ehsan Naeini (IKON)</p>
10.40	<p>The Chronological Data Explosion: the Huge Potential for Source-to-Sink Insights within Exploration Graeme Nicoll (Halliburton)</p>
11.00	<p>Tea, coffee, refreshments and posters Sponsored by </p>
11.20	<p>KEYNOTE: Digitalization and Data in Field Development Liz Wild (Shell)</p>

11.50	<p>Big data? The power is in the analysis Oliver Jordan (Statoil)</p>
12.10	<p>Virtual Glaciers and Glaciated Landscapes Derek McDougall (University of Worcester)</p>
12.30	<p>Improving access to UKCS Petrotechnical Data – the next step in a 20 year journey Daniel Brown (Common Data Access Limited)</p>
12.50	<p>Lunch and Posters</p>
13.50	<p><u>VIRTUAL FIELDTRIP (Lecture Theatre)</u></p> <p>Mars Robert Barnes (Imperial College London)</p> <p><u>SOFTWARE DEMONSTRATIONS</u></p> <p>Facilitating the effective application of analogue databases to reservoir models (Council Room) Marijn Van Cappelle (Petrotechnical Data Systems)</p> <p>Seismic VR (Arthur Holmes Room) Phil Norlund and Laurent Duchatel/Gina Craciun (Halliburton)</p>
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15.10	<p>KEYNOTE: Big Data and the British Geological Survey Garry Baker (British Geological Survey)</p>
15.40	<p>IGCP 648 Efforts to Compile Structured Data for Palaeogeographic Studies: some lessons learned Bruce Eglinton (University of Saskatchewan)</p>
16.00	<p>Palaeogeography and Big Data Paul Markwick (Knowing Earth Limited, University of Leeds & University of Bristol)</p>
16.20	<p>Data Mining and Visualization of Detrital Zircon Data: Assessment of Palaeogeographic and Geodynamic Setting Using Data from Laurentia Dean Meek (University of Saskatchewan)</p>
16.40	<p>The worldwide field course: use of 3D outcrop imagery in training Gary Nichols (RPS)</p>
17.00	<p>Panel Discussion: Chaired by Thomas O'Toole (Halliburton)</p>
18.00	<p>Close</p>
Thursday 1 March 2018	
08.30	<p>Registration and tea & coffee Sponsored by </p>
09.00	<p>Welcome</p>
09.10	<p>KEYNOTE: When Failure (a lot of failure) Becomes an Option - Machine and Deep Learning on Seismic Data John Thurmond (Statoil)</p>
09.40	<p>Big data - A boundaryless future? Rhian Burrell (Osokey)</p>
10.00	<p>How machine learning systems can extract more qualified information from seismic acquisition and processing reports. Henri Blondelle (AgileDD)</p>
10.00-15.00	<p>Python and AI basics coding workshop for Geoscientists Ikon Science This workshop will be taking place at Ikon Science's offices at 1 The Crescent, Surbiton, London, KT64BN. Pre-registration is required.</p>
10.20	<p>Tea, coffee, refreshments and posters Sponsored by </p>

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15.35	KEYNOTE: Machine Learning Assisted Petroleum Geoscience: Can a computer learn to map stratigraphic architecture and reservoir quality by training on data? Eirik Larsen/Chris Jackson (Earth Science Analytics)	
15.55	Generalized Classification of Lithology from Wireline Logs Using Machine Learning as Applied to the Permian Basin, USA and North West Shelf, Australia Jose Montero (Halliburton)	
16.15	Making the case for Big Data petrography Jenny Omma (Rocktype Ltd)	
16.35	Ensemble Learning Approach to Lithofacies Classification Using Well Logs Didi Sher Ooi (University of Bristol)	
16.55	Discussion	
17.15	Close	