



FESAus Monthly Technical Meeting

“Statistical Techniques for Petrophysics and Uncertainty”

Matthew Shaw, Senior Petrophysicist, Woodside Energy

Abstract:

With all hype currently surrounding data science and more specifically Machine Learning for subsurface data analysis, it is important to recognise and remember that we, as Petrophysicists, have been carrying out the basics of data science and machine learning since the inception of our discipline.

This presentation aims to highlight some of the key statistical techniques that are critical in a modern petrophysical analysis. It will cover the appropriate use of the more basic methods in our petrophysical toolkit, and seek to dispel some of the negative rumours surrounding the more complex. A basic explanation of some of the more black-box methods aims to remove some of the anxieties over the use of Monte Carlo, Artificial Neural Networks and apparently complex grouping/partitioning techniques. In particular the application of these techniques for robust and efficient uncertainty analysis will be discussed.

About the Presenter:

Matt is a Senior Petrophysicist at Woodside Energy. Over the past twenty years he has held a variety of roles including Geophysicist, Mine Geologist, Wireline Engineer and Petrophysicist. He has worked for several companies including BP and Schlumberger, in the UK, Norway, Nigeria, Canada and Mozambique. He has worked several key geological settings in a number of basins, including The North Sea, West of Shetland Atlantic Margin, On-Shore Canada, West Africa, Ruvuma Basin and now the NW Shelf. He has extensive experience with geo-statistics, and applying statistical techniques to log data for the quantification of petrophysical uncertainty, and petrophysical rock typing.



DATE: Tuesday 13th November 2018, 12:00 – 1:30 PM **VENUE:** Hotel IBIS- 334 Murray Street, Perth

COST: Members \$30.00; Non Members \$40.00; Students/Retirees \$10.00
Online registration at www.fesaus.org by Friday 9th November 10 AM

Note: limited seats for unregistered attendees may be available: \$50.00 cash door charge

