

Contacts

Technology & Seminars

Rebecca Holyer

Rebecca.Holyer@uk.bp.com

Data Protection & Membership

Jusmell Graterol

Jusmell.Graterol@halliburton.com

External Liaison

Kanad Kulkarni

kanad.kulkarni@gmail.com

Publications

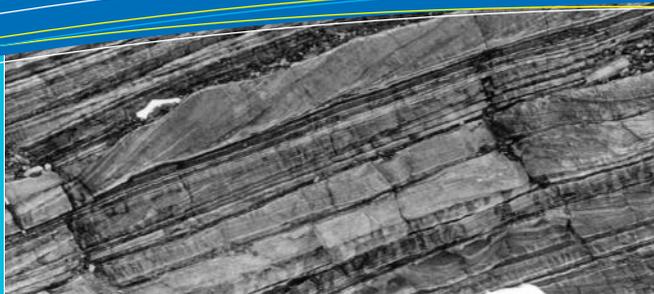
Henry Mortley

HMortley@slb.com

Sponsorship

Ross Kerr

ross.m.kerr@exxonmobil.com



In this issue

Message from the President **p1**

Upcoming LPS Events: **p2-3**

SPWLA Membership **p4**

Corporate Sponsorship Requests **p5**

Corporate Sponsorship **p6**

Message from the President

Dear members and friends of the LPS,

Happy New Year! I hope you all had a refreshing break over the festive season and that the new year has started well.

Having been recently elected as President for the London Petrophysical Society I must firstly take this opportunity to thank Mike Millar for all the time and hard work he has put into the society during his two terms as president, and especially in the last year. Fortunately, Mike is staying on the committee as past president to guide and help us!

The new year comes with a newly elected committee, which includes a few new faces. We have a busy year ahead, six evening lectures and five one day seminars to organise. Dates for these events will be on the website shortly and we will send out Microsoft Outlook invites to allow members to plan attendance more easily.

Our 2019 started with an excellent free 'New Technology' seminar on Thursday 10th January. There was a fantastic selection of talks, ranging from new methods of tool conveyance; machine learning; well integrity and cement evaluation; core mineralogy; and even quantum carbon dots. Thanks to all attendees for great questions and discussions, and special thanks to all the speakers. Thanks also to Halliburton and PDS Group for sponsoring the lunch and wine afterwards.

Alberto Mendoza will present at our next evening lecture on Tuesday 12th February, at 6:30pm upstairs in the Council room at the Geological Society. Alberto currently works at the Alan Turing Institute and will be presenting his SPWLA distinguished speaker talk on 'Statistical methods to enable practical on-site tomographic imaging of whole-core samples'. More details are on the website here: <http://lps.org.uk/events/statistical-methods-to-enable-practical-on-site-tomographic-imaging-of-whole-core-samples>

We are very pleased to be organising our next One Day Seminar in conjunction with the PESGB YPs (Petroleum Exploration Society of Great Britain Young Professionals). By collaborating with the PESGB YPs, we hope to encourage petrophysical knowledge sharing and mentorship amongst our memberships. Our annual 'Petrophysics 101' seminar will be on Thursday 7th March in the Janet Watson lecture theatre at the Geological Society. This year the theme is 'Petrophysics 101: an introduction to advanced topics'. We are aiming this at people who are relatively new to petrophysics; and to geologists, geophysicists and reservoir engineers who would like to learn more about petrophysics. Our call for abstracts is open, so get in touch if you think you could help give a talk on subjects such as thin beds, shaly sands, unconventional petrophysics, image logs, fractured reservoirs etc. at an introductory level. Registration is open too, so let your colleagues and friends know! Please see the website for more details: <http://lps.org.uk/events/petrophysics-101-2019>

The LPS will be on a drive to increase membership this year – we are still free to join, so please encourage your friends and colleagues to join. We will be sending out the 2019 membership forms and putting the form on the website shortly – please remember to sign up for 2019 to stay on our mailing list.

Best wishes for the coming year

Dawn Houlston - LPS President



Upcoming LPS Evening Lecture (6:30-7:30pm)

Upcoming Events

**Tuesday 12th
Feb 2019**

6:30pm-7:30pm

“Statistical
methods to enable
practical on-site
tomographic
imaging of whole-
core samples”
Alberto Mendoza
The Alan Turing
Institute

Evening Lecture

**Thursday 7th
Mar 2019**

9:00am-5:00pm

“Petrophysics 101
Seminar organised
in conjunction
with PESGB YP”
One Day Seminar

“Statistical methods to enable practical on-site tomographic imaging of whole-core samples”

Presented by

Albert Mendoza, The Alan Turing Institute

Tuesday 12th February 6:30pm—7:30pm

The Geological Society, Burlington House, Piccadilly

- Free Entry -

<http://lps.org.uk/events>

ABSTRACT

We show that statistical methods enable the use of portable industrial scanners with sparse measurements, suitable for fast on-site whole-core X-ray computerized tomography (CT), as opposed to conventional (medical) devices that use dense measurements. This approach accelerates an informed first-stage general assessment of core samples. To that end, we show that this novel industrial tomographic measurement principle is feasible for rock sample imaging, in conjunction with suitable forms of priors in Bayesian inversion algorithms. We assess the performance of the inversion with Gaussian, Cauchy, and Total Variation (TV) priors. In so doing, we consider, in discrete form, conditional mean (CM) estimators, via Markov Chain Monte Carlo (MCMC) algorithms with noise-contaminated measurements. To benchmark the reliability of whole-core imaging with sparse radiograms via Bayesian inversion, we include X-ray CT from numerical simulations of synthetic and measurement-based whole-core samples. To that end, we consider tomographic measurements of fine- to medium-grained sandstone core samples, with igneous-rich pebbles from the Miocene, off the Shimokita Peninsula in Japan, and fractured welded tuff from Big Bend National Park, Texas. Bayesian inversion results confirm that with only 16 radiograms, natural fractures with aperture of less than 2mm wide are detectable. Additionally, images show approximately spherical concretions of 6mm diameter. To achieve similar results, filtered back projection (FBP) techniques require hundreds of radiograms, only possible with conventional laboratory scanners.

ABOUT THE AUTHOR

Alberto Mendoza is currently a Research Scientist with the Alan Turing Institute. He received a Ph.D. degree in Petroleum Engineering from the University of Texas at Austin in 2008. From 2008 to 2014, he worked for ExxonMobil Corporation as a Formation Evaluation Specialist in the USA and Russia, and during 2014-2016 he was a Petrophysical Engineer with Shell | NAM in The Netherlands.



Contacts

Technology & Seminars

Rebecca Holyer

Rebecca.Holyer@uk.bp.com

Data Protection & Membership

Jusmell Graterol

Jusmell.Graterol@halliburton.com

External Liason

Kanad Kulkarni

kanad.kulkarni@gmail.com

Publications

Henry Mortley

HMortley@slb.com

Sponsorship

Ross Kerr

ross.m.kerr@exxonmobil.com

Petrophysics 101

One Day Seminar

Thurs 7th March 2019

The Geological Society, Burlington House, London

Co-convened with PESGB Young Professionals

Call for Abstracts

Submission Date: by 15th February 2019

On **Thursday 7th March** the London Petrophysical Society in conjunction with PESGB YP (Petroleum Society of Great Britain Young Professionals) will be holding a one-day seminar entitled "**Petrophysics 101**" at the Geological Society, Burlington House, London. The day will consist of a series of themed talks, aimed at non-petrophysicists, or those with limited experience of petrophysics who wish to develop their petrophysical knowledge.

The theme is **Petrophysics 101: an introduction to advanced topics in petrophysics**

We are looking for talks **at an introductory level on various petrophysical subjects** for example:

- Shaly sands
- Thin bed petrophysics
- Unconventional petrophysics (i.e. tight gas)
- Carbonate petrophysics
- Advanced logging tools

This is a **Call for Abstracts** for presentations from Oil & Gas Companies, Service Companies, Independent Consultants, Academia and other interested parties.

Abstracts should be up to 300 words/one page of A4 and should include one or two illustrations, submitted in Word Document format.

Please send your abstracts to **Rebecca Holyer** (rebecca.holyer@uk.bp.com) by the 15th February. You can also contact any LPS or PESGB YP committee member if you have any questions, suggestions or to express interest in presenting .

*£150 for delegates (Speakers exempt)
(LPS is not VAT registered)*

Students can register for free

Includes lunch and post-seminar wine and savouries.

Doors open at 9am.

For more info or to register for this event please visit www.lps.org.uk/events/

Upcoming Events

Tuesday 12th Feb 2019

6:30pm-7:30pm

“Statistical methods to enable practical on-site tomographic imaging of whole-core samples”
 Alberto Mendoza
 The Alan Turing Institute
 Evening Lecture

Thursday 7th Mar 2019

9:00am-5:00pm

“Petrophysics 101 Seminar organised in conjunction with PESGB YP”
 One Day Seminar

SPWLA has played a major global role in strengthening petrophysical education and strives to increase the awareness of the role petrophysics has in the oil and gas industry and the scientific community.

The LPS is a chapter of SPWLA and we encourage you all to become members of our parent organisation and join the "Home" for Formation Evaluation and Petrophysics.

Remember that professional and student membership has many benefits including;

- The Petrophysics Journal
- The new SPWLA Newsletter magazine
- Access to online literature resource
- Discounted registration for two "Topical Conferences" each year
- Access to monthly Webinars
- Access to and use of training facilities located in Houston
- Discounted registration for the Annual Symposium and its associated short courses

SPWLA Membership Type. Join at www.spwla.org



PROFESSIONAL.

- \$100/year.
- Full SPWLA benefit.

PROFESSIONAL TIER II

- \$40/year.
- Full SPWLA benefit.
- Only for low income members (<40k USD/year).

STUDENT

- \$15/year with limited free membership sponsored by Baker Hughes.
- Full benefit except voting in professional chapter and international organization.

CHAPTER AFFILIATE

- Free.
- Attending local chapter meetings.
- Only local chapter benefit.



Corporate Sponsorship— A request for Support!

Since 1973 the London Petrophysical Society has been at the forefront of disseminating technical expertise in formation evaluation for the upstream oil & gas industry in the UK.

We have been fortunate in receiving the support and sponsorship from many respected companies. This funding enables the Society to promote for the public benefit, education and knowledge the scientific and technical aspects of formation evaluation.

The LPS is a registered charity (#1020083), and as such we rely on financial donations to continue our mission. We do this through a series of one day technical seminars, evening technical presentations, and direct engagement with Universities.

Furthermore, the LPS provides significant financial support to students and universities in the form of Bursaries and Grants. We have managed to award more than £8500 to students during 2016 despite the industry downturn and tough economic climate. This has helped bring talented students into the industry. And we rely on our sponsors to provide a significant element to the funding for these activities.

In previous years we have offered a single level of sponsorship at £750 per year. Now, for the first time we are adding the option to include the benefit of complimentary places for employees of a sponsoring company at our hugely popular seminars.

To be a select contributor to this program, please contact Ross Kerr ross.m.kerr@exxonmobil.com.

Type	Price	Logo on LPS web-site	Advert in monthly newsletter	Complimentary places on LPS seminars during 2018
Standard	£750	Yes	Yes	N/A
a	£1,750	Yes	Yes	10
b	£3,000	Yes	Yes	20
c	£5,000	Yes	Yes	Unlimited

Contacts

Technology & Seminars

Rebecca Holyer

Rebecca.Holyer@uk.bp.com

Data Protection & Membership

Jusmell Graterol

Jusmell.Graterol@halliburton.com

External Liason

Kanad Kulkarni

kanad.kulkarni@gmail.com

Publications

Henry Mortley

HMortley@slb.com

Sponsorship

Ross Kerr

ross.m.kerr@exxonmobil.com

LPS Sponsors

The LPS wish to extend our sincere appreciation to the generous companies who continue to be our Sponsors.



Schlumberger



ERCE



Petromac
WIRELINE
EXPRESS

Upcoming Events

**Tuesday 12th
Feb 2019**

6:30pm-7:30pm

“Statistical methods to enable practical on-site tomographic imaging of whole-core samples”
Alberto Mendoza
The Alan Turing Institute

Evening Lecture

**Thursday 7th
Mar 2019**

9:00am-5:00pm

“Petrophysics 101 Seminar organised in conjunction with PESGB YP”
One Day Seminar

Sponsor Corporate links (in alphabetical order) are:

- Baker Hughes www.bhge.com
- BP www.bp.com
- ERCE www.erce.energy/
- Gaia Earth Sciences www.gaia-earth.co.uk
- Nexen www.nexencnooltd.com
- One & Zero Data Services www.oneandzero.co.uk
- Petromac www.petromac.co.nz
- Schlumberger www.slb.com
- Shell www.shell.com
- Tullow Oil PLC www.tulloil.com