**Preliminary Technical Program**

**MONDAY, August 27th.**

1:00-5:30 p.m. Workshop (Crombie Suite)
Cross Innovation and Integration as a Way to Improve Core Analysis
Speakers: Gerald Hamon, Ted Braun, Roland Lenormand and Jos Maas
Kindly Sponsored by Senergy

Detailed Workshop agenda is provided separately.

**TUESDAY, August 28th.**

7:30-8:00 a.m. Light Breakfast (Exhibition Hall - Boyd Suite)
Kindly Sponsored by Xradia

8:00-8:15 a.m. Opening Remarks

8:15-9:45 a.m. Session 1 - Digital core analysis and relative permeability
Chairs: J. Schembre-McCabe and H. Urkedal

SCA2012-01 Relative permeabilities from simulation in 3D rock models and equivalent pore networks: critical review and way forward
Igor Bonaldi, Gerald Hamon, W. Kallel, D. Kachuma

SCA2012-02 Numerical pore-network fusion to predict capillary pressure and relative permeability in carbonates
Sven Roth, Danyong Li, Hu Dong, Martin J. Blunt

SCA2012-03 Relative permeability assessment in giant carbonate reservoirs using Digital Rock Physics
Zubair Kalam, Samy Seraj, Hani Sahn, Alex Mock, Vegar Stavlo, Pål Eric Øren, Olivier Lopez

9:45-10:15 a.m. Coffee Break (Exhibition Hall - Boyd Suite)
Kindly Sponsored by Xradia

10:15 a.m.-12:15 p.m. Session 2 - CO2 sequestration and EOR
Chairs: J. Maas and O. Torsaeter

SCA2012-04 CO2-brine-rock interactions in reservoir chalk rock - A coupled experimental and numerical approach for obtaining hydrochemical results at reservoir conditions
Claus Kjeller and John Jutra

SCA2012-05 Improvement in oil recovery and injectivity by carbonated water injection
M. Sohrabi, M. Tavakolian, A. Emadi, M. Jami and S. Ireland

SCA2012-06 Tertiary liquid and supercritical CO2 injection in chalk and limestone at strongly water-wet and near neutral-wet conditions
Eide, Ø., Haugen, Å., Svenningsen, S., Hoff, K. Enstad, G., Fenne, M., Graue, A.

SCA2012-07 Salt precipitation due to SC-gas injection: single versus multi-porosity rocks
H. Oiff, J. Snippe, K. de Klooster, H. Husain, and A. Abri

12:15-1:15 p.m. Lunch (Crombie Suite)
Kindly Sponsored by NOV

1:15-2:45 p.m. Session 3 - Evolution of properties under stress or chemical reactions
Chairs: D. Green and I. Abu-Shelkh

SCA2012-08 Large pressure depletions in Palogene GOM reservoirs can significantly reduce near wellbore permeability
John L. Shafer, Kevin Vornhaben, Greg Balthoff

SCA2012-09 Quantifying reactive flow-induced pore evolutions in microporous carbonate cores using X-ray micro computed tomography
Jafar Qajar, Nicolas Francois and Christoph H. Arn

SCA2012-10 Mechanical behavior of an altered reservoir limestone: multi-scale and core analysis approaches
Louis Zinsmeister, Jérémie Dautriat, Michel Bonert, Nicolas Gland, Alexandre Dimanov and Jean Raphanel

2:45-3:00 p.m. Coffee Break (Exhibition Hall - Boyd Suite)
Kindly Sponsored by Xradia
26th Symposium of the Society of Core Analysts, Aberdeen, Scotland, 2012

Wednesday, August 29th.

7:30 - 8:00 a.m. Light Breakfast (Exhibition Hall - Boyd Suite)
Kindly Sponsored by Schlumberger

8:00 - 10:00 a.m. Session 4 – Improved SCAL techniques and interpretation
Chairs: J. Reed and J. Shafer

SCA2012-11 Impact of capillary forces on residual oil saturation and flooding experiments for mixed to oil-wet carbonate reservoirs
Shehadeh K. Masalmeh

SCA2012-12 Heterogeneous carbonates - integrating plug and whole core data using rock types
Mark Skalinski, Rafael Salazar, Giery Laffonza, Zheng Yang, and John Urbach

SCA2012-13 Gas-liquid relative permeabilities from one-step and multi-step centrifuge experiments
F. Bauget, S. Gautier, R. Lenormand and A. Samouillet

SCA2012-14 A novel flow cell and integrated sensor technique for simultaneous magnetic monitoring of core samples during fluid flow experiments
Shahjahan Khan, David K. Potter and Ergun Kuru

10:00 - 10:30 a.m. Coffee Break (Exhibition Hall - Boyd Suite)
Kindly Sponsored by Schlumberger

10:30 - 12:00 Noon Session 5 – EOR processes
Chairs: D. Maloney and S. Masalmeh

SCA2012-15 Some investigations on the role of microparticles on the low salinity process
Malick Cissokho, Azita Ahmadi, Henri Bertin, Aziz Omari & Gerald Hamon

SCA2012-16 Transport of surfactants in fractured chalk rock - Laboratory experiments and numerical simulations
Ingebret Fjeld, John Fabricius Zuta and Ann Helen Kvaalstad

SCA2012-17 Performance of SWAG injection versus alternating and continuous injection of water and gas in low gas-oil IFT and mixed-wet system
M. Sohrabi, M. Fatemi, A. Farzaneh, M. Jamiolahmady, S. Ireland and K. Ahmed

Wednesday, August 29th.

12:00 noon - 1 p.m. Lunch (Crombie Suite)
Kindly Sponsored by NOV

1:00 - 2:30 p.m. Session 6 - Pore Scale Modelling - Static & Dynamic Rock Properties
Chairs: G. Hamon and R. Lenormand

SCA2012-18 Two examples of adding value through Digital Rock Technology
Josephina Schembre-McCabe, Rafael Salazar-Tio, and Jairam Kamath

SCA2012-19 Validation of fundamental carbonate reservoir core properties using Digital Rock Physics
Olivier Lopez, Alex Mock, Pål Eric Øren, Halli Long, Zubair Kalam, Volker Vahrenkemp, Muhamed Al Hammadi, Babeeho Ai Hosi, Hani Sahn, and Antonio Vizamora

SCA2012-20 Micron to millimeter upscaling of shale rock properties based on 3D imaging and modeling
Shuang Zhang, Robert E. Klimentidis, Patrick Barthelemy

2:30 - 2:45 p.m. Coffee Break (Exhibition Hall - Boyd Suite)
Kindly Sponsored by Schlumberger

2:45 - 3:15 p.m. Exhibitor Presentations II

3:15 - 4:20 p.m. Poster Presentations II (SCA2012-47 through SCA2012-61)
4:20 - 5:15 p.m. Poster Session II (Exhibition Hall - Boyd Suite)
Kindly Sponsored by Shell
7:30 - 8:00 a.m. Light Breakfast (Exhibition Hall - Boyd Suite)
Kindly Sponsored by Chevron

8:00 - 10:00 a.m. Session 7 - Wettability and EOR
Chairs: X.-D. Jing and E. Withjack

SCA2012-21 Performance of fluorochemicals on wettability alteration of carbonate rocks to alleviate condensate/water banking
Jalal Fahimpour, Mahmoud Jamiolahmady, R. Severac, M. Sohrabi

SCA2012-22 Oil recovery from Bentheim Sandstone by sequential waterflooding
Nina Loahardjo, Winoto Winoto, Norman R Morrow

SCA2012-23 Displacement of oil by surfactant flooding in mixed-wet condition
Kumuduni Prasangika Abeysinghe, Ingebret Fjelde, Arild Lodne

SCA2012-24 Mechanistic study of heavy oil recovery by waterflooding: impact of oil viscosity and wettability
Alireza Emadi, Mehran Sohrabi

10:00 - 10:30 a.m. Coffee Break (Exhibition Hall - Boyd Suite)
Kindly Sponsored by Chevron

10:30 a.m. - 12:00 noon Session 8 - Unconventional reservoirs
Chairs: J.K. Ringen and W. Richardson

SCA2012-25 The “Step Decay” : A new transient method for the simultaneous determination of intrinsic permeability, Klinkenberg coefficient and porosity on very tight rocks
Didier Lasseux, Yves Jannot, Sandra Pratice, Matthieu Mallet, Gerald Hamon

SCA2012-26 Effect of mechanical loading and water saturation on the gas recovery of tight gas: experimental study
Fu Xiaojian, F. Agostini, C. Davy, J. Jeannin, F. Skoczylas

SCA2012-27 Quantitative analysis of kerogen content and mineralogy in oil shale cuttings by Diffuse Reflectance Infrared Fourier Transform Spectroscopy
Alyssa Charsky and Michael M. Herron

12:00 noon - 1 p.m. Business Lunch (Crombie Suite)
Kindly Sponsored by NOV

Best Paper and Best Poster Awards

1:00 - 1:45 p.m. Exhibitor Presentations III

3:00 - 3:15 p.m. Coffee Break (Exhibition Hall - Boyd Suite)
Kindly Sponsored by Chevron

3:15 - 5:00 p.m. Session 10 - NMR applications
Chairs: D. Ruth and G. Potter

SCA2012-30 Magnetic resonance imaging of chemical EOR in core to complement field pilot studies
Jonathan Mitchell, John Staniland, Alexander Wilson, Andrew Howe, Andrew Clarke, Edmund Fordham, John Edwards, Rien Faber, Iton Bouwmeester

SCA2012-31 Wettability as a function of pore size by NMR
Ahmed S. Al-Muthana, Gabor G. Husz, Mark S. Ma, A. Valse, Benjamin Nicot, Philip M. Singer

SCA2012-32 Applications of a new technique to acquire spatially resolved NMR petrophysical data
Derrick Green, Dragos Vase1novic, Bruce Balcom, and Florin Marica

5:00 p.m. Closing remarks
### Alternate Oral Presentations accompanied by Full Manuscripts and Posters

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<td>Investigation of electrical surface charges and wettability alteration by ions matching water flooding</td>
<td>Xie Quan, Wu Jiahong, Qin Jinjun, Liu Qingle, Ma Desheng, Liu Li, Luo Mani</td>
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<td>A study of sulphate ions - effects on ageing and imbibition capillary pressure curve</td>
<td>Rajib Ahsan, M. V. Madland, F. Bratteli, A. Hørth</td>
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<td>SCA2012-36</td>
<td>Computation of relative permeability functions in 3D digital rocks by a fractional flow approach using the lattice Boltzmann method</td>
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<td>SCA2012-37</td>
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<td>Songhua Chen and Lilong Li</td>
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### Posters accompanied by Extended Abstracts

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<td>Maria A. Velasco-Rojo and Izaakun Zubizarreta</td>
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<td>Capillary pressure and pore size distribution from water injection: a feasibility study</td>
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<td>SCA2012-43</td>
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<td>SCA2012-54</td>
<td>Core flood study of low salinity effect in low permeability sandstone reservoirs</td>
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<td>SCA2012-56</td>
<td>Drainage and imbibition capillary pressure curves of carbonate reservoir rocks by digital rock physics</td>
<td>Yaoming Mu, Qian Fang, Chuck Baldwin, Jonas Toelke, Avrami Girader, M. Demaskia, Z. Kalam</td>
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<td>Extraction of fractures from 3D rock images and network modelling of multi-phase flow in fracture-pore systems</td>
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Zeyun Jiang, Rink van Dijke, Sebastian Geiger, Gary Couples, Rachel Wood

SCA2012-58  Pore-scale characterization of carbonate rock heterogeneity and prediction of petrophysical properties
Chenchen Wang, Jun Yao, Kejian Wu, Yongfie Yang, Xin Wang

SCA2012-59  Non-destructive local X-Ray tomography for multi-length scale analysis of carbonates: validations and observations
Jeff Gelb, S. Roth, H. Dong, D. Li, A. Gu, S. Yun, and W. Yun

SCA2012-60  Stability analysis of CO2 brine-immiscible displacement
Holger Ort, Steffen Berg

SCA2012-61  High contrast imaging of porous geomaterials and geological cores with micro computed x-ray tomography
Felix Kim, Dayakar Penumadu, Allen Gu, Sylvia Yun, Jeff Gelb