SCA Symposium 2021
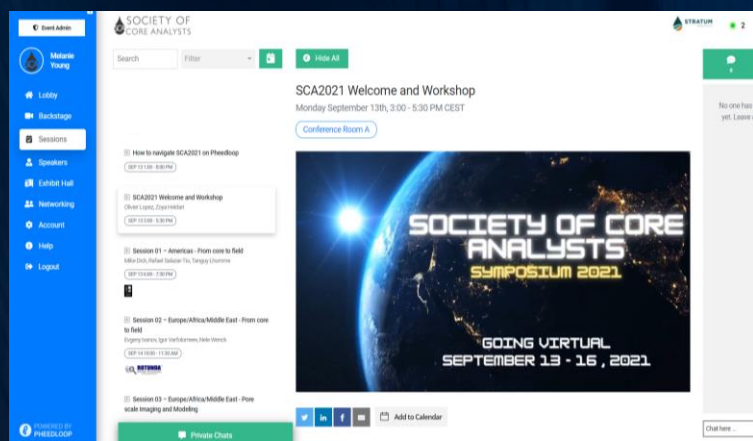## *Virtual Conference*

SCA
SOCIETY OF
CORE ANALYSTS

Introduction

The Society of Core Analysts (SCA), founded in 1986, is a chapter-at-large of the Society of Petrophysicists and Well Log Analysts (SPWLA). The SCA symposium is a four-day conference and exhibition, which takes place annually in different locations around the world with 2021 being its 35th year. The symposium features one online workshop during the first day and a plenary virtual live technical session showcasing 30 oral presentations and approximately 20 posters presentations.

The annual symposium has built a reputation over the last 30+ years for its high-quality technical presentations in the area of Core Analysis, as well as for giving the main players in the industry the opportunity to showcase their latest technical innovations and offerings in equipment and services. Technical delegates and service companies will be represented and will share their ideas, innovations, knowledge, best practices, products and services.

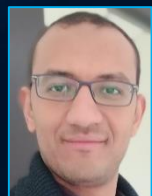## PheedLoop Digital Conference Platform

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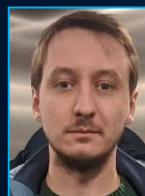
SCA Symposium 2021
Virtual Conference

SCA — **SOCIETY OF CORE ANALYSTS**

Speakers Line-Up

13-16 September 2021

Ivan D. Perez Torrijos
Researcher
University of Stavanger

University of Stavanger

Mohamed Regaieg
Digital Rock Physics Engineer
TOTAL S.A.

TotalEnergies

Jorge Andres Tovar Munoz
MSc.Production Ops.
University of Campina

UNICAMP

Mohamed Awad
PhD. Student
University of Houston

UNIVERSITY OF HOUSTON

Malin Haugen
PhD. Student
University of Bergen

UNIVERSITAS BERGENSIS

Mark Knackstedt
Professor
Australian National University

Australian National University

Matthieu Mascle
Researcher
IFPEN

ifp Energies nouvelles

Olivier Lopez
Leading researcher
Equinor

equinor

Mike Dick
PhD. Principal Researcher
Green Imaging Technology

GIT

Nele Wenck
PhD. Student
Imperial College London

Imperial College London

Mohamed Khater
PhD. Petroleum Engineer
CSIRO

CSIRO

Nikolay Evseev
Senior Research Scientist
Schlumberger

Schlumberger

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Virtual Conference

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SOCIETY OF CORE ANALYSTS

Speakers Line-Up

13-16 September 2021

Quentin Danielczick
Engineer
TOTAL S.A.

TOTAL

Steffen Berg
PhD. Physics; Principal Science Expert
SHELL

Rafael Salazar-Tio
Industry Process Senior Specialist
Dassault Systemes

3DS

Tanguy Lhomme
Researcher
EPSLOG BV.

EPSLOG ENGINEERING

Raheleh Farokhpoor
Petrophysicist
Lundin-Energy Norway

Lundin Energy

Zoya Heidari
Associate Professor
University of Texas

THE UNIVERSITY OF TEXAS AT AUSTIN

Roland Lenormand
Researcher
CYDAREX

CYDAREX

Sandra Profice
Researcher
TOTAL S.A.

TotalEnergies

Subhash Ayirala
Champion of SmartWater flooding
Saudi Aramco

aramco

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SCA Symposium
Virtual Workshop
13 September, 2021

SCA

SOCIETY OF CORE ANALYSTS

Monday September 13th, 8:00 - 11:00 AM CST

From Core to Field:
WHOLE CORE IMAGE DATA in PETROPHYSICAL and RESERVOIR ENGINEERING WORKFLOWS

Mark Knackstedt

Professor, Department of Applied Mathematics, Australian National University

Multiscale imaging and the integration of small-scale heterogeneity into static & dynamic models

Olivier Lopez

PhD. Fundamental and applied geochemistry; Leading researcher, Equinor ASA

Core and borehole images analysis for automatic classification of lithofacies and reservoir evaluation

Zoya Heidari

Associate Professor, University of Texas

Quantification of Rock Fabric and its Integration with Well Logs for Enhanced Formation Evaluation

From Core to Field
Day 1 *(Session 1)*
13 September, 2021

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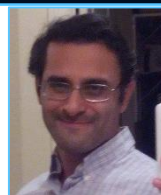**Monday September 13th, 12:00 - 1:30PM CST**

12:00 AM – 12:30 AM / CST

Rafael Salazar-Tio
Dassault Systemes

Multiscale Digital Rocks: Application of a multi-scale multi-phase

workflow to a Carbonate reservoir rock

12:30 AM – 1:00 PM / CST

Tanguy Lhomme
Epslog

Combining high-resolution core data with unsupervised machine learning

schemes for the identification of rock types and the prediction of reservoir quality

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1:00 PM – 1:30 PM / CST

Mike J. Dick
Green Imaging Technology

NMR Core Analysis

On Whole Core Samples

From Core to Field
Day 2 *(Session 2)*
14 September, 2021

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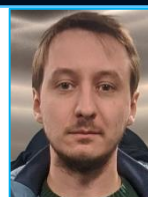**Tuesday September 14th, 3:00 - 4:30AM CST**

3:00 AM – 3:30 AM / CST

Schlumberger

Evgeny Ivanov
Schlumberger
Acid treatment optimization based

on digital core analysis

3:30 AM – 4:00 AM / CST

Imperial College London

Nele Wenck
Imperial College London
Advanced Core Characterisation to Improve Multiphase Flow

Prediction in Heterogeneous Sandstone and Carbonate Rocks

4:00 AM – 4:30 AM / CST

Schlumberger

Igor Varfolomeev
Schlumberger
3D multiclass digital core models via micro-CT, SEM-EDS

and deep learning

Pore Scale Imaging and Modelling

Day 2 *(Session 4)*

14 September, 2021

Tuesday September 14th, 11:00 -12:30PM CST

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11:00 AM – 11:30 AM / CST

Ahmed Zankoor

University of Wyoming

In-situ characterization of capillary pressure during

three-phase flow in porous media
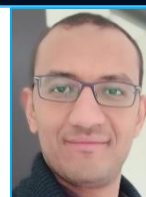
11:30 AM – 12:00 PM / CST

Jorge Andres Tovar Munoz

University of Campina

Study of Relative Permeability Curves for

a CO2-Brine System

at Reservoir Conditions in Carbonates

12:00 PM – 12:30 PM / CST

David K. Potter

University of Alberta

Comparing Predicted 3D Anisotropic Properties from Micro-CT

Derived Digital Rock Physics with Experimentally Measured Anisotropy

Advanced Imaging and EOR

Day 3 *(Session 5)*

14 September, 2021

Tuesday September 14th, 6:00-7:30PM CST

SCA
SOCIETY OF CORE ANALYSTS

6:00 PM – 6:30 PM / CST

CSIRO

Mohamed Khater

CSIRO

Dissolution behavior in carbonate reservoirs

during WAG injection:

An experimental study

6:30 PM – 7:00 PM / CST

University of South Wales

Fatimah Alzubaidi

University of New South Wales,

Sydney, Australia

Improved fracture segmentation from unwrapped images of drill core using an innovative two-stage segmentation Mask R-CNN

7:00 PM – 7:30 PM / CST

CSIRO

Bruno da Silva Falcão

CSIRO Energy BU

Monitoring fluid migration using an in-situ nuclear magnetic

resonance core flooding system integrated with fiber optic sensors:

A proof of concept

Improved SCAL Techniques and Interpretation

Day 3 *(Session 6)*

15 September, 2021

SCA — SOCIETY OF CORE ANALYSTS

Wednesday September 15th, 3:00-4:30AM CST

3:00 AM – 3:30 AM / CST

Lundin Energy

Raheleh Farokhpoor

Lundin-Energy Norway

Core cleaning and wettability restoration,

selecting appropriate method

3:30 AM – 4:00 AM / CST

University of Stavanger

Ivan D. Pierez Torrijos

University of Stavanger

Replicating Initial Wettability in Carbonates by

Advanced Core Analyses:

A Step Closer to Representative Reservoir Wettability

4:00 AM – 4:30 AM / CST

TotalEnergies

Quentin Danielczick

TOTAL S.A.

Wireless Acquisition For Resistivity Index in Centrifuge :

A New Method to Estimate Archies Law Parameters

Poster Presentations
Day 3 *(Session 8)*
15 September, 2021

SCA
SOCIETY OF CORE ANALYSTS

Wednesday September 15th, 11:00-12:30PM CST

11:00 AM – 12:30 PM / CST

Poster Presentations

- Evaluation of in-Situ Gelation Behavior by a Slim Tube Technique

- Integration of core-scale logging, dual-energy computed tomographic imaging and geochemical and mineralogical analysis of a composite core

- Reactivation and branching by CO_2 injection in pre-faulted Berea and Boise sandstones. Laboratory micro-seismic imaging

- Novel analysis of molecular structures at oil-brine interface for Smartwater flooding.

- Digital extraction of core properties from whole core photos

- Developed emulsification in porous media flow

- The Effect of Microporosity and Oil Property on the Initial and Residual Oil Saturations of a Bimodal Carbonate

- Data rescue – maximising the value of archived core using non-destructive Multi-Sensor Core Logger (MSCL) and machine learning techniques

- Rate dependency of capillary trapping in gas-brine flow

- Multi Field Evaluation of T2 Pore Size Distributions and T1-T2 2D Maps

- Influence of Wettability on Molecular Adsorption and Kinetics Studied by In-Situ NMR

- Tortuosity and Cementation exponent as variables related to heterogeneity and the impact on Sw calculations in Tambaredjo field of Suriname.

- Elucidating Hydrocarbon and Brine Flow Paths in Source Rock Shales Using NMR Imaging

- Powder River Basin Integrated Hydrocarbon System Case Study

- Rate-Controlled Mercury Injection Experiments to Characterize Pore Space Geometry of Berea Sandstone

- Evaluation of the InterFoam Solver in the Prediction of Immiscible Two-Phase Flow in Imbibition and Drainage on the Pore-Doublet System.

- Dynamic pore-scale modeling of residual fluid configurations in disordered porous media.

- Evaluation the effectiveness of the different methods enhanced oil recovery (thermal and chemical) on plugs of the Cenomanian tier

- Oscillating Back Pressure Regulator (OBPR) for High-Pressure Oscillating Back Pressure Regulator (OBPR) for High-Pressure

- A Mechanistic Study of Wettability Alterations in Sandstone by Low Salinity Water Injection (LSWI) and CO_2 Low Salinity Water-Alternating-Gas (WAG) Injection

Laboratory Core Analysis
Day 4 *(Session 9)*
16 September, 2021

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Thursday September 16th, 3:00 - 4:30AM CST

3:00 AM – 3:30 AM / CST

MONTAN UNIVERSITÄT
WWW.UNILEOBEN.AC.AT

Holger Ott
Montanuniversität Leoben

Material balance and mixing behavior during emulsification

of crude oil by using micro-X-ray tomography

3:30 AM – 4:00 AM / CST

aramco

Subhash Ayirala
Saudi Aramco

SmartWater Synergy with Surfactant and Polymer:

A Microscale Investigation at Crude Oil-Water Interface

4:00 AM – 4:30 AM / CST

CYDAREX

Roland Lenormand
CYDAREX

DarcyShale: An improved GRI method for more reliable

measurements on low permeability samples

Core Analysis
Day 4 *(Session 10)*
16 September, 2021

SCA
SOCIETY OF CORE ANALYSTS

Thursday September 16th, 8:00-9:30AM CST

8:00 AM – 8:30 AM / CST

TotalEnergies

Sandra Profice

TOTAL S.A.
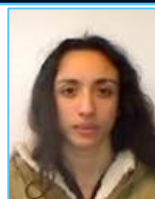
The KPC-Log: A new method for measuring the permeability

of a non-cylindrical tight sample

8:30 AM – 9:00 AM / CST

UNIVERSITAS BERGENSIS

Bergit Brattekaas

Dept. of Physics and Technology,

University of Bergen

Of rats and rocks: using pre-clinical PET imaging facilities in core analysis

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9:00 AM – 9:30 AM / CST

Eni

Giorgio Volonte

Eni Spa – E&P Division

Integrated workflow for rotary sidewall core orientation:

best practices and examples from planning to execution

SCA Symposium 2021
Spotlight on our Speakers

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SOCIETY OF CORE ANALYSTS

Olivier Lopez
PhD. Fundamental and applied geochemistry; Leading researcher
Equinor ASA

Olivier Lopez is a leading researcher in geology and petrophysics in the research and technology department of Equinor ASA.
His work is mainly focusing on reservoir evaluation and characterization for siliciclastic, carbonate and shale systems and integration of new technologies.
Before joining Equinor ASA, Olivier was project manager in Numerical Rocks ASA.
Olivier holds a Ph.D. degree (2006) in fundamental and applied geochemistry

Zoya Heidari
Associate Professor
University of Texas

Zoya Heidari is an Associate Professor in the Hildebrand Department of Petroleum and Geosystems Engineering at The University of Texas at Austin.
Before joining UT Austin, Zoya was an Assistant Professor at Texas A&M University from 2011 to 2015.
She has been the founder and director of the UT Austin Industrial Affiliate Research Program on "Multi-Scale Rock Physics" since 2016. She was also the founder and the director of the Texas A&M Joint Industry Research Program on "Multi-Scale Formation Evaluation of Unconventional and Carbonate Reservoirs" from 2012 to 2015.
Among her many awards, Zoya is the recipient of the 2021 SPWLA Distinguished Technical Achievement Award, the 2020 SPWLA Young Professional Technical Award, the 2019 EAGE Arie van Weelden Award, the 2019 AIME Rossiter W. Raymond Memorial Award, the 2019 SPE Distinguished Membership Award, and the 2017 SPE Cedric K. Ferguson Medal.
Her research interests include Petrophysics, Rock Physics, Multi-Scale Formation Evaluation, Borehole Geophysics, Integrated Reservoir Characterization, and Completion Petrophysics.

Mark Knackstedt
Professor Department of Applied Mathematics
Australian National University

Mark Knackstedt (BSc, Columbia; PhD, Rice) is a Professor at the Department of Applied Mathematics and researcher in the National CT Lab at the Australian National University. He was the 2019 Kimberley Clark Interpore Lecturer and has been an SPE Distinguished Lecturer (2015-16) and three-time SPWLA distinguished speaker. He was awarded the George C. Matson Memorial Award from the AAPG in 2009 and the ENI award for New Frontiers in Hydrocarbon Research in 2010.

SCA Symposium 2021
Spotlight on our Speakers

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SOCIETY OF CORE ANALYSTS

Mike Dick
PhD. Molecular physics; Principal Research Scientist
Green Imaging Technology

Mike Dick has a Bachelor of Science degree from the University of New Brunswick. His post-graduate work focused primarily on molecular physics and included both a Master's degree from the University of New Brunswick and a Ph.D. from the University of Waterloo.
After graduation, Mike's career diversified working first in astrophysics while doing a post-doctoral fellowship at NASA's Jet Propulsion Lab. Following this position, Mike moved into the field of nuclear physics in Chalk River Ontario with Bubble Technology Industries (BTI) as a research scientist.
His work with BTI focused primarily on developing unique radiation detectors for defense and homeland security organizations, first responders, space agencies, regulatory/standards groups, and research institutions. This work has resulted in three patent filings.
Mike joined the Green Imaging Technologies in September 2015 as a Principal Research Scientist. Mike works closely with the research team innovating new NMR techniques and tools for our clients
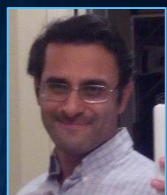
Rafael Salazar-Tio
Industry Process Expert Senior Specialist
Dassault Systemes

Rafael Salazar-Tio holds a bachelor degree in Physics from the National University of San Marcos, Peru and a PhD degree in Physics from the University of the Balearic Islands, Spain.
He held Research Associate positions in the Eindhoven University of Technology, and in the Washington University in St. Louis, both in Physical chemistry.
He worked in Petrophysics R&D at Chevron for 12 years before joining Dassault Systemes in 2018. Rafael's research interests include multi-scale and multi-physics methods and applications in porous media.

Tanguy Lhomme
PhD. Applied Earth Sciences and Director
Epslog

Tanguy Lhomme is a director at Epslog. Before joining Epslog in 2013, Tanguy worked eight years as a Reservoir engineer with Shell International, including 4 years on reservoir surveillance and enhanced Oil Recovery projects for PDO in Oman.
He holds a PhD in Applied Earth Sciences from Delft University, with a research thesis on lab experiments of hydraulic fracturing and an MSc in Mining and Petroleum Engineering from the University of Minnesota, with a research thesis on fundamental aspects of rock strength testing.
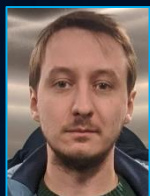His current interests are in innovation for core testing and analysis, unconventional reservoir characterization, multi-disciplinary data integration, Artificial Intelligence applied to E&P digital data processing and analysis.

SCA Symposium 2021
Spotlight on our Speakers

SOCIETY OF CORE ANALYSTS

Evgeny Ivanov
Senior Research Scientist
Schlumberger

Evgeny is a Senior research scientist in Schlumberger Moscow research center since 2012 and his areas of interest are thermodynamics, multiphase transport and numerical modelling.
In 2008 he finished a Masters degree in Physics from Moscow Institute of Physics and Technology, Russia.
He holds a Doctorate in Fluid Mechanics from Moscow Institute of Physics and Technology, Russia

Igor Varfolomeev
Researcher
Schlumberger

Graduated from Moscow Institute of Physics and Technology.
Came to Schlumberger Moscow Research (SMR) center in 2010.
Igor works both on 3D image processing algorithms (segmentation, spatial registration, etc.) and on image acquisition (microCT, SEM, etc.).

Nele Wenck
PhD. Student
Imperial College London

Nele is a second year PhD student at Imperial College supervised by Samuel Krevor, Ann Muggeridge and Samuel Jackson.
Her work focuses on investigating the impact of rock heterogeneity on multiphase flow properties, with particular attention to the observed fluid behavior at carbon capture and storage sites.

SCA Symposium 2021
Spotlight on our Speakers

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Mohamed Regaieg
Digital Rock Physics engineer
TOTAL S.A.

Mohamed Regaieg is a senior Digital Rock Physics engineer in TotalEnergies . In 2015, he was awarded a Ph.D. degree in petroleum engineering from Heriot Watt University for research in pore network modelling of fingering phenomena during unsteady-state waterflooding of heavy oils.
He then joined Total as a research reservoir engineer at the Geoscience Research Centre in Aberdeen, UK, where he has developed Total's in-house pore network simulator.
He focused on improving the physics and the computational efficiency of the simulator.
In 2019 he moved to TOTAL's E&P Scientific and Technical Center in Pau, France where he is involved in the industrialisation and the integration of Digital Rock Physics in reservoir engineering workflows.
He works on the full Digital Rock Physics simulation workflow from the image processing to multiphase flow simulations

Nikolay Evseev
Senior Research Scientist
Schlumberger

Nikolay Evseev is a senior research scientist at Schlumberger Moscow Research where he is a lead developer of the density functional hydrodynamics research code (DHD simulator) that is used for numerical simulation of multiphase flow in various applications such as SCAL and EOR on Digital Rock models.
Before joining Schlumberger back in 2008, he worked at the Schmidt Institute of Physics of the Earth of the Russian Academy of Sciences where he developed various scientific and engineering software used for geological modeling, hydrocarbon reservoir simulation, and 3D visualization.
He also participated in field development planning works for various Russian O&G companies and was responsible for geological modeling and reservoir simulation.
He is a co-author in more than 30 technical publications, including two books

Maulin Haugen
PhD. Student
University Of Bergen

Malin is a PhD student at the department of physics and technology at the University of Bergen.
Her research focuses on subsurface CO_2 storage and security on several scales; from pore scale to large-scale flow visualization (https://fluidflower.w.uib.no/).
Prior to shifting focus towards CO_2 storage she has 5 years experience as a reservoir engineer, working with optimizing oil and gas production, planning new wells to be drilled and generating short-term production budgets.
Malin completed her master's degree in reservoir physics in 2012, studying CO_2 injection in fractured chalk for enhanced oil recovery

SCA Symposium 2021
Spotlight on our Speakers

SOCIETY OF CORE ANALYSTS

Ahmed Zankoor
MSc. Petroleum Engineering; Research Assistant
University of Wyoming

Ahmed holds a MSc from the faculty of Petroleum and Mining Engineering, Suez University, Egypt.
He is a Research assistant at the Center of Innovation for Flow through Porous Media, University of Wyoming.

David K. Potter
Professor of Geophysics and Petrophysics
University of Alberta

David K. Potter is currently Professor of Geophysics and Petrophysics at the University of Alberta, Canada.
He was the Director of the Integrated Petroleum Geoscience (IPG) MSc program at the University of Alberta from 2009-2014.
Before that he was the Anadarko Professor of Formation Evaluation, and the Director of Research, at the Institute of Petroleum Engineering, Heriot-Watt University, UK.
David was the President of the Society of Core Analysts (SCA) in 2008-2009, and received the Darcy Award for technical achievement from the SCA in 2015.

Jorge Andres Tovar Muñoz
MSc. Production Operations Assistant
University of Campinas

Jorge Andrés is a Colombian Petroleum engineer (Universidad Surcolombiana, 2014) and has a M.Sc. in Petroleum Engineering (University of Campinas, 2020).
Currently working as Production Operations Assistant for an independent company in the East Llanos basin of Colombia

SCA Symposium 2021
Spotlight on our Speakers

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Bruno da Silva Falcao
MSc. Petroleum Engineering Research Student
CSIRO

Bruno graduated with a B.Sc. in Petroleum engineering from the State University of Northern of Rio de Janeiro (UENF) in 2019.
During his bachelor's degree he was granted a scholarship to study abroad for 16 months at the University of Alberta, Canada where he also worked as a summer intern at Alberta Innovates – Technology Futures. In addition, Bruno gained industrial experience in a 6-months internship program at Halliburton (Brazil) in the Production Enhancement Department.
Most recently, Bruno joined the Petroleum Engineering Research group at Edith Cowan University, Australia, as a Masters by Research student. His research, in collaboration with CSIRO (Kensington), focuses on the application of FBG sensors to map the deformation of rock reservoirs during core flooding tests

Fatimah Alzubaidi
MSc. Petroleum Engineering
University of New South Wales

Fatimah Al-Zubaidi is a Ph.D. candidate in Minerals and Energy Resources Engineering at the University of New South Wales, Australia.
She was awarded a M.Sc. in Petroleum Engineering from the same institution.
She holds an Australian Government Research Training Program Scholarship. Her major research interest is rock typing using machine learning

Mohammed Kather
PhD. Petroleum engineering
CSIRO

Mohamed holds a doctoral degree (PhD) in petroleum engineering from a Curtin university.
He is a petroleum engineer specialize in wells and reservoir performance analysis, Enhanced Oil Recovery, Special Core Analyses, Core flooding, Petroleum economics and Project management, Oil and gas-related operations.

SCA Symposium 2021
Spotlight on our Speakers

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Quentin Danielczick
Engineer
TOTAL S.A.

In 2019, Quentin Danielczick was awarded an engineer degree in industrial technologies from ENSGTI in Pau – France.
During his studies, he joined Total as an intern to develop and industrialize processes and in-house software's in the centrifuge and capillary pressure laboratory.
Since 2019 he is working for TOTAL's E&P Scientific and Technical Center in Pau, France, he is involved in the industrialization and the integration of innovations in the SCAL field

Ivan Dario Pinerez Torrijos
PhD Student
University of Stavanger

Iván D. Piñerez Torrijos holds a MS degree in Chemical engineering from the University of Barcelona, and a PhD from University of Stavanger.
He is now working as a postdoctoral researcher in Reservoir Chemistry at the University of Stavanger.
His main research topics are reservoir chemistry, SCAL studies with high focus on wettability, and Smart Water EOR processes in both carbonate and sandstone reservoirs.
Dr. Piñerez has participated in fundamental research to improve the chemical understanding of reservoir wettability and wettability alteration processes.
He has also contributed in industry projects sponsored by international oil companies with the objective to evaluate the EOR-potential for specific oil reservoirs

Raheleh Farokhpoor
Petrophysicist
Lundin-Energy Norway

Raheleh is a reservoir engineer with more than 10 years experiences in experimental and digital special core analysis.
She has a PhD in "geological CO_2 storage" with focus in CO_2-brine core analysis.
At the moment, she is working as senior reservoir engineer in Lundin-Energy where she is responsible for SCAL and PVT projects

SCA Symposium 2021
## *Spotlight on our Speakers*

SOCIETY OF CORE ANALYSTS

Fabrice Pairoys
PhD. Expert in Core and Special Core Analysis,
TOTAL S.A

Fabrice Pairoys owns a Ph.D. in Multiphase flow through porous media.
He has a strong knowledge in Petrophysics, especially in core and special core analysis with over 15 years of experience.
He has been working as Principal research scientist and core analysis expert with SCHLUMBERGER before joining TOTALENERGIES as Petrophysics expert in 2019.
Fabrice has published over 20 papers and given numerous presentations/training in the special core analysis domain (Kr & Pc interpretations, wettability, core resistivity/NMR/dielectric...)

Steffen Berg
PhD. Researcher,
Shell Global Solutions International BV

Steffen Berg is a Principal Science Expert at Shell Global Solutions International B.V. in the Netherlands. His main research interests range from the fundamental aspects of multiphase flow in porous media to special core analysis, CO_2 sequestration and EOR using 3D imaging by X-ray computed tomography to gain insights into the transport mechanisms from pore to Darcy scale. He holds a master's degree in materials science from the University of the Saarland and a PhD in physics from the University of Mainz / Max Planck Institute for Polymer Research at Mainz, Germany.
After a postdoc at Princeton University he joined Shell as a research scientist. He is currently also a visiting reader in the Earth Science & Engineering and Chemical Engineering departments at Imperial College London
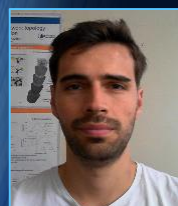
Matthieu Mascle
Researcher
IFPEN

Mathieu is working as a research scientist at IFP Energies Nouvelles, in the department of Earth Sciences and Environmental Technologies.
His focus of interest is the understanding of multi-phases flows at multi-scale.

SCA Symposium 2021
Spotlight on our Speakers

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Subhash Ayirala
PhD. Petroleum engineering;
Champion of SmartWater flooding, Saudi Aramco

Subhash Ayirala is the Champion of SmartWater flooding at Saudi Aramco's Exploration and Petroleum Engineering Center—Advanced Research Center, Dhahran, Saudi Arabia.
He has 15+ years reservoir engineering experience in upstream oil & gas industry.
He holds MSc and PhD degrees in petroleum engineering from Louisiana State University, Baton Rouge, USA.
He has written over 75 technical papers, 50+ journal publications, and holds 30 granted patents.
Subhash is SPE distinguished member and currently serves as co-Executive Editor for SPE Reservoir Evaluation & Engineering and Elsevier's Journal of Petroleum Science and Engineering.
He received SPE Outstanding Technical Editor recognition 9-times and is also a recipient of the 2017 SPE A Peer Apart Award


Roland Lenormand
Cydarex

Roland has a background in theoretical physics. He hold a thesis on multiphase flow in porous media and has worked on this subject during all his career in academic research (CNRS), Schlumberger and IFP.
He is now in charge of the company CYDAREX that commercializes the laboratory software CYDAR, SCAL teaching equipment and devices for permeability measurements on small samples.
Roland also provides teaching and consulting in special core analysis.
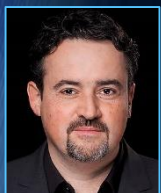
Holger Ott
Professor of Reservoir Engineering
Montanuniversität Leoben

Holger holds a PhD in physics from the Freie Universität Berlin in Germany, and is Professor of Reservoir Engineering at the Montanuniversität Leoben in Austria and head of the Department Petroleum Engineering.
Prior to his current position, Holger worked as senior scientist for Shell Global Solutions International in the Netherlands.
During his time at Shell, Holger was teaching as Honorary Reader at the Department of Chemical Engineering at Imperial College London in the United Kingdom. In 2015 he wrote his Habilitation thesis on geological carbon sequestration at RWTH Aachen University in Germany to obtain the Venia Legendi in Applied Geosciences.
His research interests are fluid displacement and reactive transport processes on various scales with application to geological hydrogen and CO2 storage and enhance oil recovery.

SCA Symposium 2021
## *Spotlight on our Speakers*

Bergit Brattekaas
PhD. Scientific Researcher;
Department of Physics and Technology, University of Bergen

Bergit Brattekås has a PhD in Reservoir physics.
She is a Scientific Researcher for the Department of Physics and Technology, University of Bergen, Norway.
Her research interests are in-situ imaging of dynamic multi-phase flow, focusing on positron emission tomography (PET) and magnetic resonance (MR) imaging, image analysis, CO_2 utilization and storage (CCUS), hydrogen storage, conformance control including polymers, polymer gels and foams, flow mechanisms and flow properties in fractured and synthetic media.

Giorgio Volonte
Technical leader,
Rock mechanics laboratory, ENI Spa

Giorgio joined ENI in 2004 as reservoir engineer after a post-graduate specializing master in Petroleum Engineering and graduation in 2003 in Environmental Engineering at Politecnico di Milano.
From 2006 to 2017 he has worked on well and field scale finite element geomechanical modeling in the petroleum engineering department of Eni S.p.A, particularly for subsidence, cap rock integrity and sand production problems.
During last 4 years Giorgio has been working as Technical leader of the rock mechanics laboratory of Eni S.p.A on geomechanical experimental studies for both business activities and R&D projects on CCS and hydrogen storage.
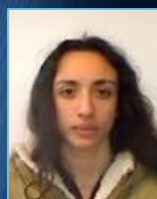
**Sandra Profice**
Reservoir engineering;
Total S.A.

Sandra Profice is a reservoir engineer at Total. She has been working on studies and R&D projects focused on the interpretation of logs and core flood experiments in monophasic and diphasic conditions, over the last ten years. She holds a PhD on gas flows in very low permeable porous media.

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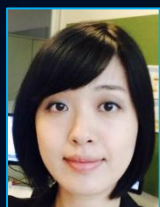
Bo Gong
Petrophysicist,
Chevron

Bo Gong is currently a Research petrophysicist with the Chevron Technical Center.
She received her PhD degree in Electrical Engineering from the University of Houston in 2014.
Her research interests include borehole imaging technologies, image processing and interpretation techniques, and machine learning applications in petrophysics.
Bo was a Distinguished Speaker for SPWLA in 2019 - 2020.

Mohamed M. Awad
Research Assistant
Egyptian Petroleum Research Institute

Mohamed is a Fulbright fellow, he had a MSc in Petroleum Engineering from University of North Dakota and was a Visiting Student in the Hirasaki research group at Rice University.
He is working as a Research Assistant at the Egyptian Petroleum Research Institute since 2014.
His Master thesis research was focusing on NMR core-analysis and chemical enhanced oil recovery in unconventional reservoirs