This school covers the basics of the technology of foam for improved oil recovery and aquifer remediation from pore-level mechanisms to field-scale application, with emphasis on simple, practical reservoir-engineering design tools and fitting simulation parameters to laboratory data. It also covers broader issues of sweep efficiency and mobility control in gas-injection IOR.

### Instructors
- Prof. G.J. Hirasaki (Rice University)
- Prof. L.W. Lake (University of Texas at Austin)
- Prof. A. Skauge (University of Bergen)
- Prof. W.R. Rossen (Delft University of Technology)

### Topics Covered
- Sweep efficiency in gas-injection IOR (fingering, channeling, gravity override)
- Mobility control options in gas-displacement processes
- Water Alternating Gas (WAG) and three-phase relative permeability
- Review of pore-level mechanisms of foam generation and propagation
- Experimental design of a foam-displacement process
- Fitting foam simulator parameters
- Fractional-flow description of gas, foam, and WAG processes
- Simple tools for estimating foam propagation rate, diversion between layers, injectivity, and gravity override

### Registration fee
- $2500 attendees from industry
- $1000 academic staff and Post doc researchers
- $600 PhD students and Post doc researchers

We can admit limited number of participants. People who register earlier will have priority. Registration deadline is 15 April 2018.

For more information, visit www.delftsummerschool.citg.tudelft.nl

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**Registration**

For registration please send an email to delftsummerschool-citg@tudelft.nl
Instructors:

George J. Hirasaki had a 26-year career with Shell Development and Shell Oil Companies before joining the Chemical Engineering faculty at Rice University in 1993. At Shell, his research areas were reservoir simulation, enhanced oil recovery, and formation evaluation. At Rice, his research interests are in NMR well logging, reservoir wettability, surfactant enhanced oil recovery, foam mobility control, gas hydrate recovery, asphaltene deposition, and emulsion separation. He received the SPE Lester Uren Award in 1989. He was named an Improved Oil Recovery Pioneer at the 1998 SPE/DOE IOR Symposium. He was the 1999 recipient of the Society of Core Analysts Technical Achievement Award. He is a member of the US National Academy of Engineers.

Larry W. Lake is a professor in the Department of Petroleum and Geosystems Engineering at The University of Texas at Austin, where he holds the Sharon and Shahid Ullah Chair. Dr. Lake is the author or co-author of more than 100 technical papers, four textbooks and the editor of three bound volumes. He has served on the Board of Directors for the Society of Petroleum Engineers (SPE), won the 1996 Anthony F. Lucas Gold Medal of the AIME, the Degoyer Distinguished Service Award in 2002, and has been a member of the National Academy of Engineers since 1997. He won the SPE/DOE IOR Pioneer Award in 2000.

Arne Skauge is Professor of Reservoir Engineering at University of Bergen and Director of CIPR (Centre for Integrated Petroleum Research) Uni Research, Bergen, Norway. His research interests include enhanced oil recovery, multiphase flow in porous media, special core analysis, and reservoir modeling. He has been involved in many EOR pilots, including Single Well Tracer Tests (SWTT) for surfactants and gas, foam gas shut-off, WAG, and FAWAG. Skauge has supervised more than 110 MS and PhD students at Norwegian and international universities and published more than 200 reservoir engineering papers. He holds a Foundation CMG (Computer Modeling Group) chair in EOR.

William R. Rossen is Professor in Reservoir Engineering in the Department of Geoscience and Engineering, Delft University of Technology. He has more than 90 journal publications and has delivered invited lectures and taught courses worldwide. Prof. Rossen’s current research focuses on the use of foams for diverting fluid flow in porous media and sweep improvement in EOR. Prof. Rossen was named Best Instructor at Delft University of Technology in 2011. In 2012 he was named an IOR Pioneer at the SPE/DOE Symposium on Improved Oil Recovery, Tulsa, OK, USA. He is a Distinguished Member of SPE.

Organizing committee

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