Other - EPIC Seminar - Enabling Process Innovation Through Computation

Transient Multiphase Flow and its Application to Production Operations

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Patrick F. Taylor Hall 1106
January 24, 2014 - 03:30 pm

Abstract:

Since the liquid content of vapor-liquid flows in piping systems can vary dramatically, even in nominally "steady-state" systems, many perplexing phenomena can be understood only through the use of a transient simulator that captures these fluctuating liquid inventories. Such a simulator, OLGA, has been developed, updated, and applied for the last thirty years. The structure, history, and applications of this simulator will be discussed. Oil and gas applications include flow assurance, the analysis of accident scenarios, the sizing of process equipment, and the analysis of wellbore dynamics. A particularly important emergent application involves the control of wellbore instabilities in hydraulically fractured shale reservoirs.

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This EPIC seminar sponsored by
Craft & Hawkins Petroleum Engineering Department at LSU and Schlumberger
PetE Graduate students are required to attend
Anyone interested in Computer Modelling of Engineered Systems will benefit by attending this series

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Speaker's Bio:

Schlumberger – Multiphase simulation, 2012-present
SPT Group – Applications of multiphase simulation to production operations, 1996-2012
Exxon Production Research – Production operations, fluid flow simulation, 1977-1996
PhD, MS – Mechanical Engineering, Stanford University, 1975
BSME – University of Texas at Austin, 1970

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