Modeling and Simplicity: Occam’s Razor in the 21st Century
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It is easy to see why modeling has become central to reservoir engineering practice. Even the most complicated numerical simulators (models) are far less expensive to run than a field pilot test, to say nothing of the ensuing project itself. It is only a small exaggeration to say that modelers, usually in the form of numerical simulators, have become the princes and king of the industry.

It has not always been thus. Before the popularity of digital computing there were several modeling procedures that relied on hand calculations. These simple models were ideally suited for spreadsheet calculations and persist to this day. This presentation contends that there remains a role for such models even in the era of multi-thousand cell simulators.

This presentation reviews several of the non-simulation methods to predict hydrocarbon recovery. It illustrates the success of each and how they are used in teaching and practice.

Larry Lake short Bio

Larry W. Lake is W. A. "Monty" Moncrief Centennial Chair in petroleum engineering at the University of Texas at Austin.[1] He has served on the faculty of the Petroleum and Geosystems Department since 1978. He obtained a B.S.E. from Arizona State University and a Ph.D. from Rice University, both in chemical engineering.[2] He is a world famous expert in reservoir engineering, geochemistry, fluid flow in porous media and enhanced oil recovery. Larry Lake is well published in the SPE literature and co-author of the textbook A Generalized Approach to Primary. Hydrocarbon Recovery.[1]

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