# Steven L. Bryant

**George H. Fancher Centennial Teaching Fellowship in Petroleum Engineering & J. H. Herring Centennial Professorship in Petroleum at the Engineering Department of Petroleum and Geosystems Engineering at the University of Texas, Austin.**

Dr. Steven Bryant earned degrees in chemical engineering from Vanderbilt (B.E.) in 1981 and from UT-Austin (Ph.D) in 1986. He joined the faculty of the College of Engineering in 2002. He directs the Geological $CO_2$ Storage Research Program in the Center for Petroleum and Geosystems Engineering and is regularly invited to lecture on carbon sequestration and the role of the oil and gas industry in enabling that emissions mitigation technology. At UT-Austin Bryant holds the J. H. Herring Centennial Professorship in Petroleum Engineering and the George H. Fancher Centennial Teaching Fellowship in Petroleum Engineering. He worked in industry research centers at BP and at ENI for a decade before joining academia.

Bryant's research interests range from grain-scale models of geologic processes to the role of methane hydrates in the Earth's carbon cycle. Current projects include fundamental studies of the mechanics and geometry of fluid/fluid interfaces in porous media, the application of surface-treated nanoparticles to oil recovery, mechanisms for increasing the long-term security of greenhouse gases stored in deep geologic formations, and the geologic and engineering factors that control production from unconventional gas reservoirs. He has published more than sixty papers and one textbook with applications in production engineering, reservoir engineering and formation evaluation. He served as Distinguished Lecturer for the Society of Petroleum Engineers in 2001-2.

Dr. Bryant models reactive flow in petroleum and environmental engineering applications, and pursues novel approaches for understanding transport phenomena in granular media such as soil and sedimentary rocks. His work has applications to oil and gas exploration and production, including unconventional resources. Bryant's work also applies to groundwater contamination and remediation, and understanding the Earth's carbon cycle. Bryant uses physically representative network models to provide predictive theories of transport and capillary phenomena in porous media. He applies novel algorithms and computing technologies to environmental and reservoir problems. Bryant makes quantitative links between geologic processes and petrophysical properties.