

## **Gas and Liquid Flow in Shale**

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### **Abstract**

Shale gas strata, important energy supplies in North America, are projected to become important as well in Europe, Latin America, and Asia in the near future. Gas and oil production from these fine grained reservoirs is technically challenging, however fluid flow as observed in field is much higher than predictions based on conventional models (Darcy's equation). Clear understanding of gas/liquid flow in these natural, fine-grained, porous systems is necessary in making capital investments, as well as in making field-development decisions by governments and major oil companies. This talk presents detailed discussion of gas and liquid flow in tiny pores (nanometer scale). Novel research methods and challenges for reserve estimation and permeability predictions will also be presented.