MRST: fully implicit open-source simulator

Based on automatic differentiation for automatic generation of Jacobians

- Simple to extend to new models
- Gradients obtained through adjoint simulations
- Current models
  - Oil/water (+ polymer/surfactant)
  - Oil/gas
  - 3-phase black oil (live oil/dry gas)
- Benchmarked against commercial simulator on real field black oil model
- ~20 years of historic data
- Virtually identical results





