LANL Capabilities Applicable to the Advanced Development and Optimization of Biofuels

Advanced Development and Optimization Workshop

12th December 2017
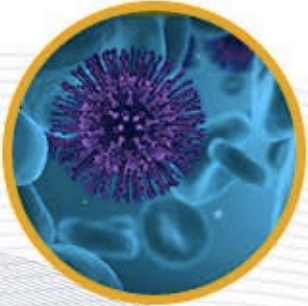
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Advanced Sensing Capability

Los Alamos National Laboratory

High Performance Computing

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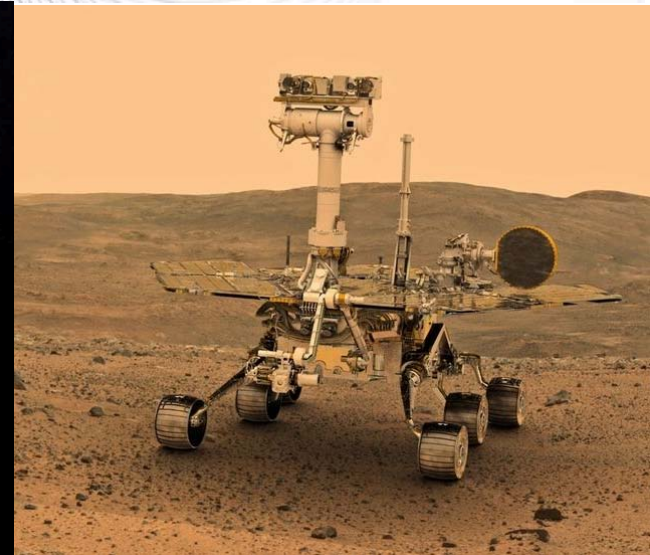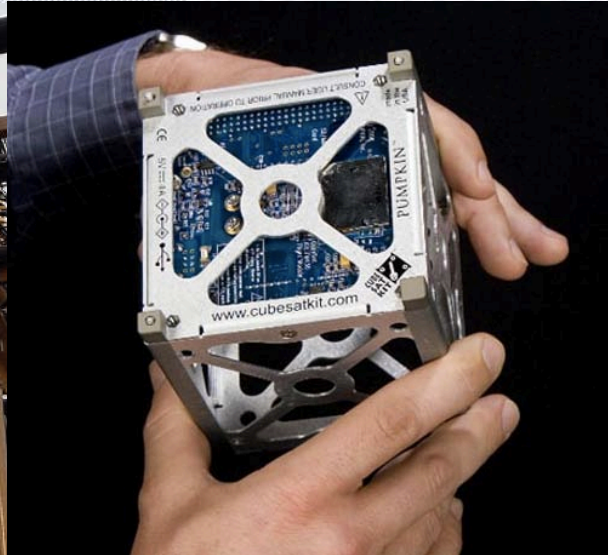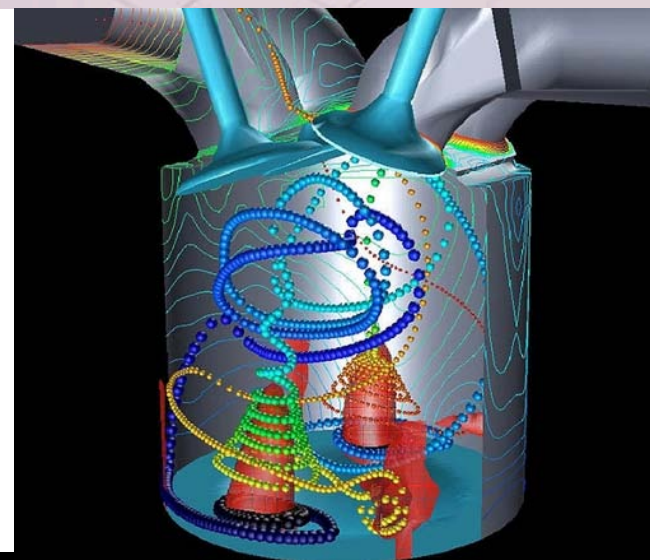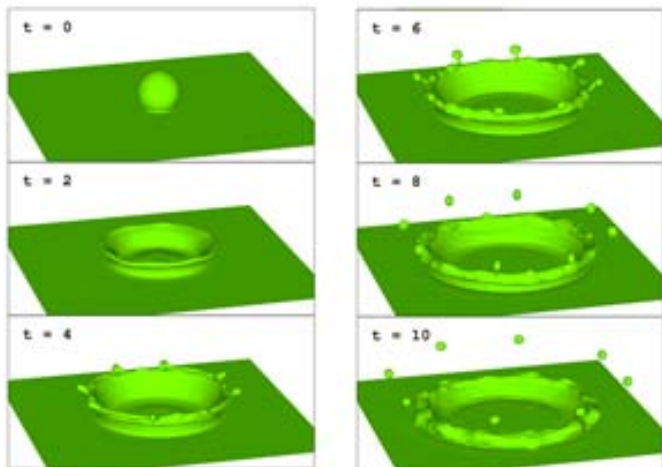
Applied Engineering

- **Santa Fe Spirits**
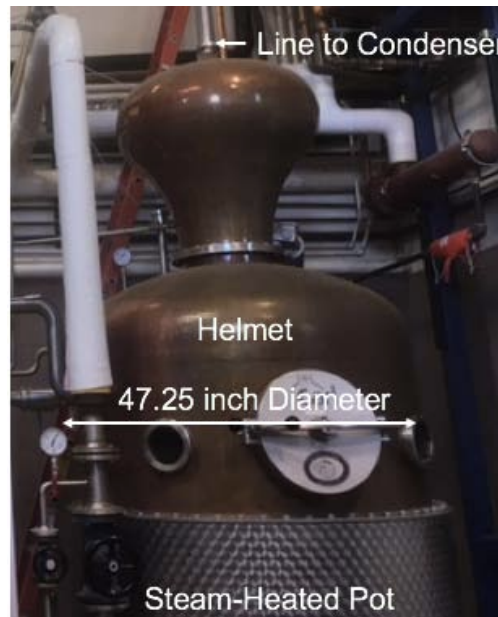 - Artisan distillery that produces whiskey and other fine spirits sold in eight states and three countries

- **The Problem**
  - The chilled water system that supplies the condenser on their still is under sized due to altitude

Los Alamos National Laboratory

Capability Summary

- Demonstrated ability to solve industry problems
    - Over 20 years P&G CRADA
    - Long running Chevron CRADA
    - Cooperative projects with local small businesses
- Specifics Capabilities:
    - Batch reaction optimizations
    - Continuous flow reactor engineering
    - Engineering solutions
    - High performance computing
    - Remote sensing in extreme environments
    - Spectroscopy in extreme environments
    - Computational fluid dynamics
- Biomass expertize in algal biofuels, catalysis, engineering
    - Participant in CoOptima, FCIC, ChemCatBio
- Large scale engineering and manufacturing expertise
- 145 R&D 100 awards