SAND2016-2031C

Welcome and Sandia Overview

Basil Hassan, PhD

Senior Manager

Thermal, Fluids, and Aero Sciences Group

Engineering Sciences Center

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Sandia National Laboratories

Exceptional service in the national interest

U.S. DEPARTMENT OF ENERGY

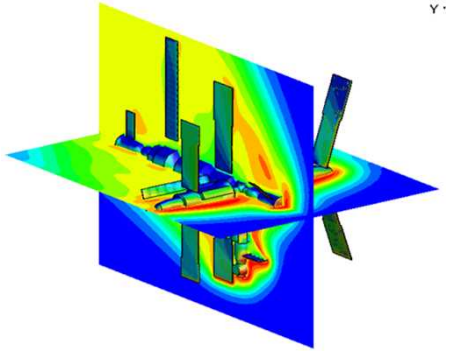
NNSA National Nuclear Security Administration

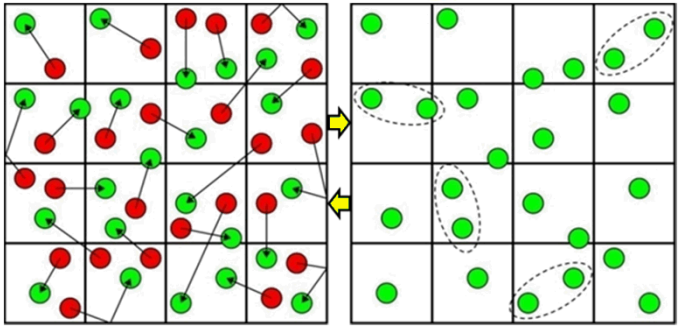
Sandia National Laboratories is a multi-program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.

Aloha! Welcome to Kauai for DSMC 2015!

Sandia National Laboratories

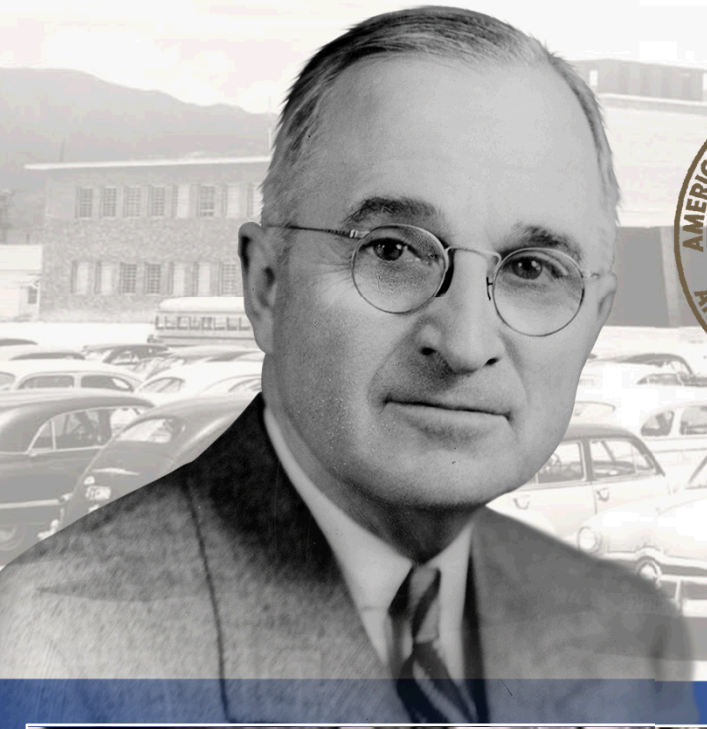
- Sandia National Laboratories welcomes you and is happy to be hosting 7th DSMC Conference.
- We hope you enjoy the presentations, the professional collaborations, and by all means the beautiful scenery!

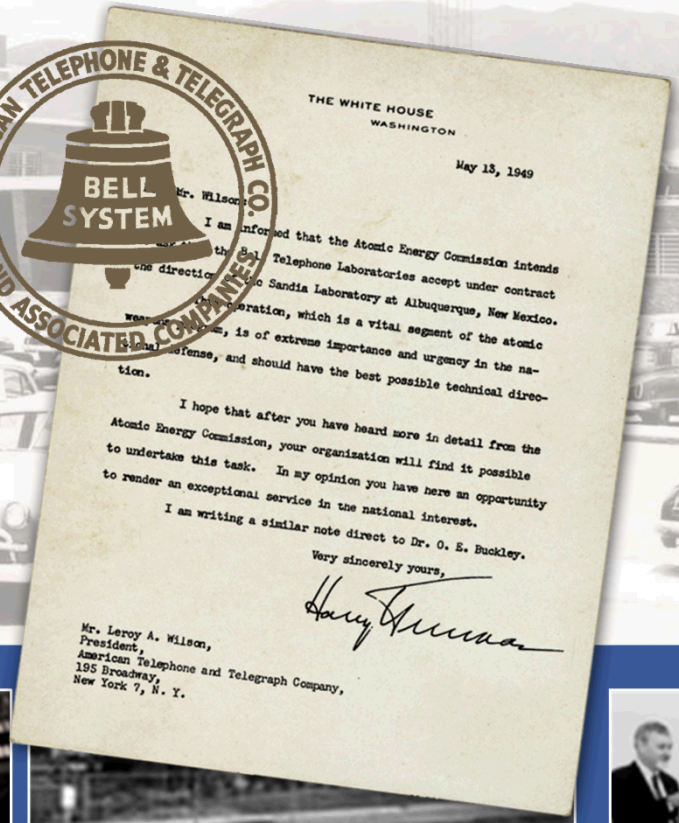




Sandia's History

Exceptional service in the national interest





THE WHITE HOUSE
WASHINGTON

May 13, 1949

Mr. Wilson:

I am informed that the Atomic Energy Commission intends that the Bell Telephone Laboratories accept under contract the direction of the Sandia Laboratory at Albuquerque, New Mexico. The operation, which is a vital segment of the atomic program, is of extreme importance and urgency in the national defense, and should have the best possible technical direction.

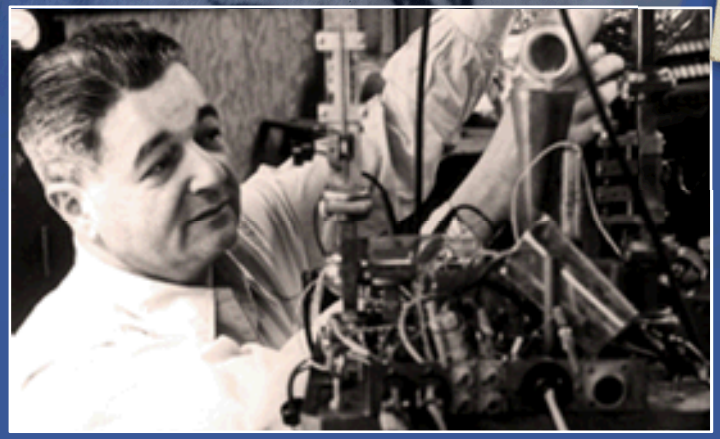
I hope that after you have heard more in detail from the Atomic Energy Commission, your organization will find it possible to undertake this task. In my opinion you have here an opportunity to render an exceptional service in the national interest.

I am writing a similar note direct to Dr. O. E. Buckley.

Very sincerely yours,

Harry Truman

Mr. Leroy A. Wilson,
President,
American Telephone and Telegraph Company,
195 Broadway,
New York 7, N. Y.



Sandia's Governance Structure

Sandia Corporation

- AT&T: 1949–1993
- Martin Marietta: 1993–1995
- Lockheed Martin: 1995–present

Government-owned contractor-operated

Federally funded research and development center

Sandia's Sites

Sandia National Laboratories

Albuquerque, New Mexico

Livermore, California

Kauai, Hawaii

Waste Isolation Pilot Plant, Carlsbad, New Mexico

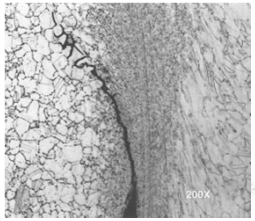
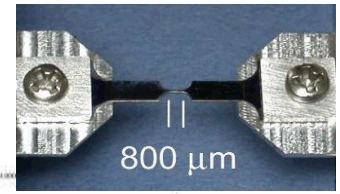
Pantex Plant, Amarillo, Texas

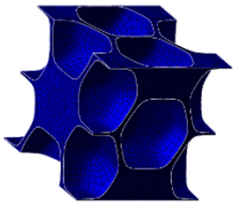
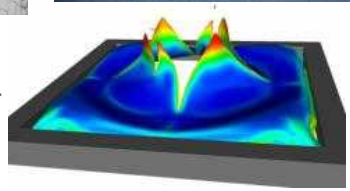
Tonopah, Nevada

Engineering Sciences Core Technical Areas

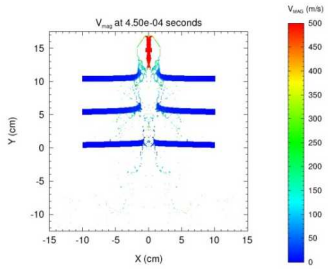
Sandia National Laboratories

Solid Mechanics

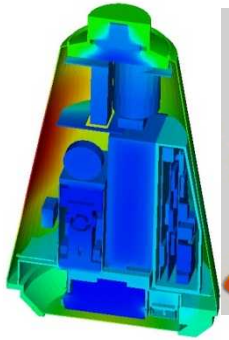
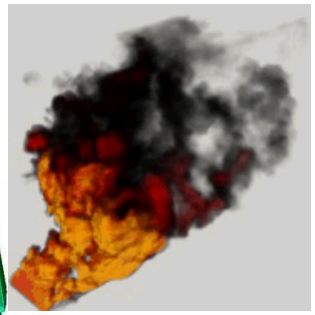



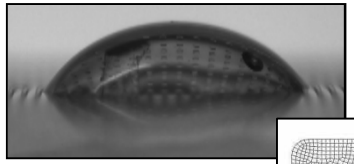
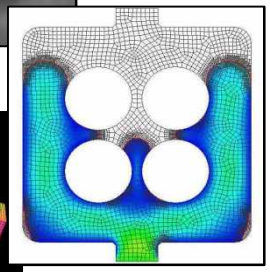
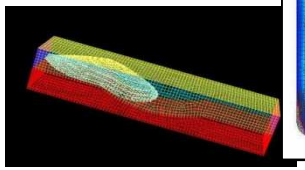
Shock Physics and Energetics



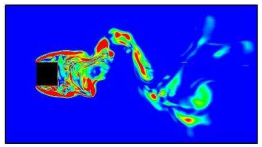
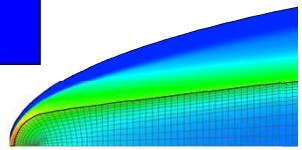
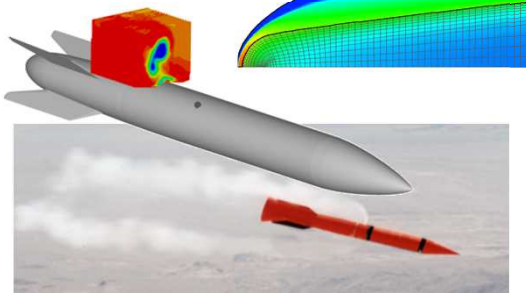
Thermal & Combustion Sciences

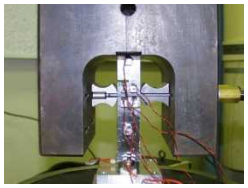
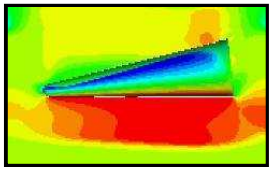
Fluid Mechanics

Aerosciences

Structural Dynamics

Computational Modeling

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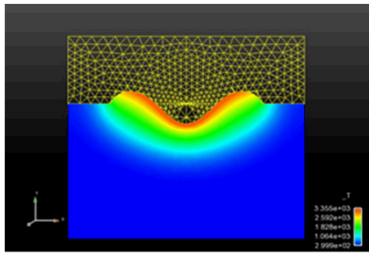
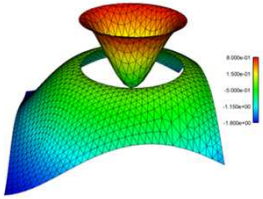
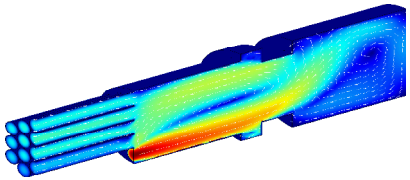
Manufacturing Flows



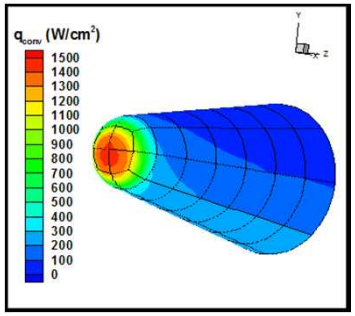
Laser welding

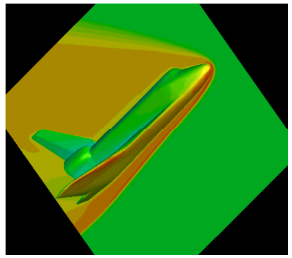


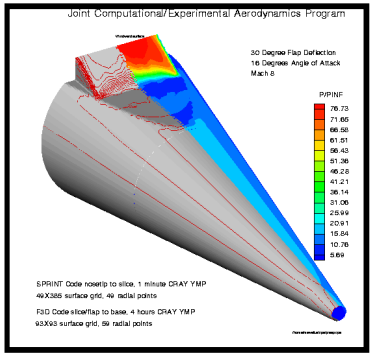
Arbitrary discontinuity capturing on moving interfaces via CDFEM



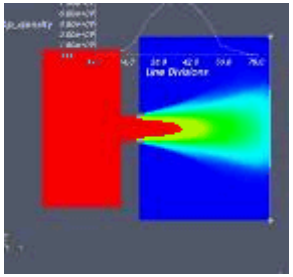
Hypersonic Flight Phenomena



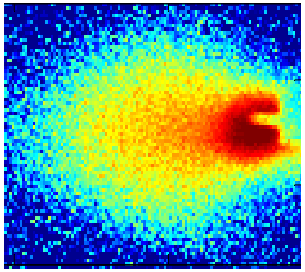




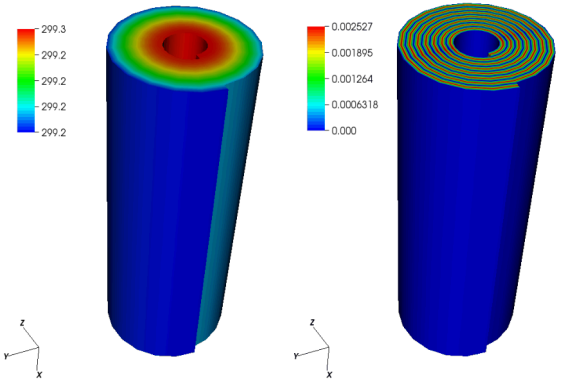
Reacting Flows and Electrochemistry



Plasma Transport

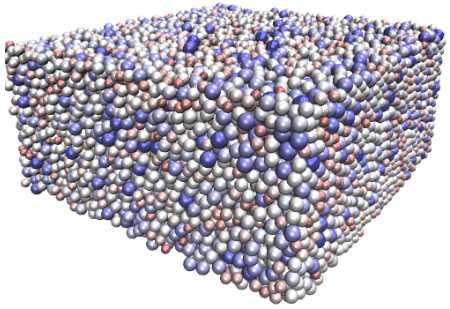


Arc Initiation



Li-Ion Battery Performance

Disordered Materials



Experimental Discovery, Validation & Diagnostics

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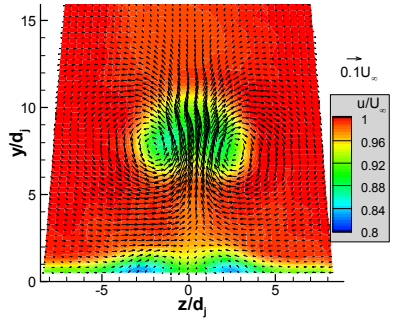
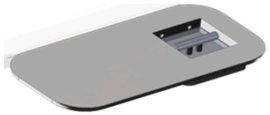
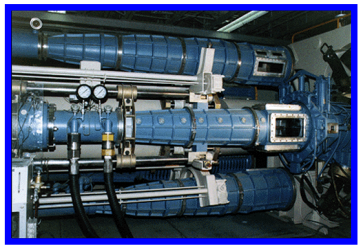
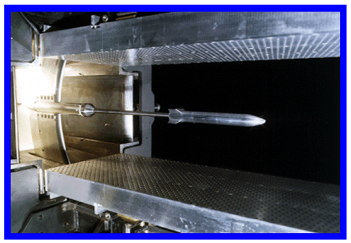
Diagnostics for High Speed Compressible Flows

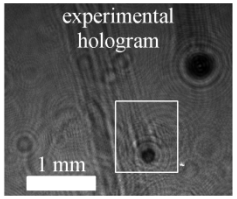


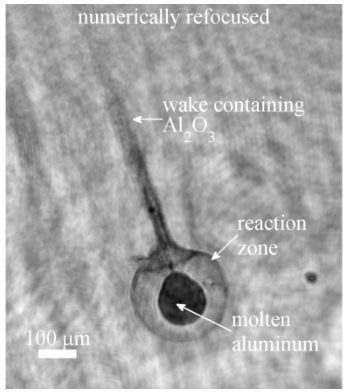


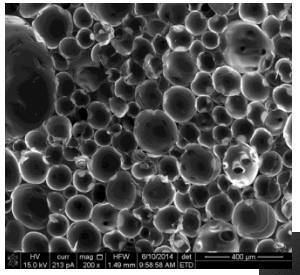


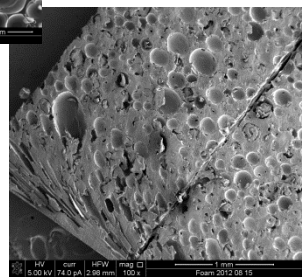


Digital In-line Holography in Molten Aluminum



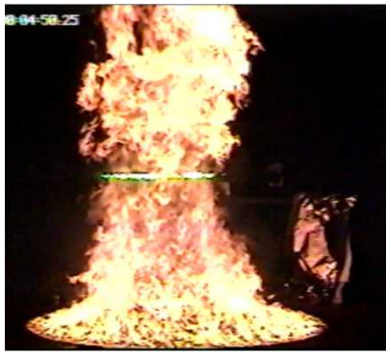






SEM Measurements in Foam

Laser Diagnostics in Fires



Aloha and Enjoy DSMC 2015!

Sandia National Laboratories