



Class Locations:

Livermore Software Technology Corp.

7374 Las Positas Rd. Livermore, CA 94551

1740 West Big Beaver Road Troy, MI 48084

Contact: classes@lstc.com

www.lstc.com/training

ALE/Eulerian & Fluid/Structure Interaction in LS-DYNA

Instructor: Dr. M'hamed Souli

3 Days - \$750 Students \$375 w/student ID

Includes on site continental breakfasts, lunches, breaks, class dinner

Includes 30-day LS-DYNA demo license to practice

Prerequisite: Students should have finite element analysis experience, and are expanding their applications to Fluid and Fluid/Structure Interaction problems.

Day 1, 2, 3 - Introduction to Eulerian and Lagrangian Formulations

- **ALE smoothing algorithms**
 - Simple Average
 - Volume Weighting
 - Equipotential

- **Advection Algorithms**
 - First order donor SALE algorithm
 - Second order Van Leer
 - Second order + Half Index shift

- **Material and void**
 - Advection algorithm in voided material

- **Multi-material formulation**
 - Advection in multi-material formulation
 - Pressure equilibrium

- **Fluid/Structure Coupling**
 - The ALE Fluid/Structure coupling
 - The automatic Fluid/Structure coupling
 - The momentum coupling
 - The penalty coupling