

DYNAmore GmbH
Gesellschaft für FEM Ingenieurdienstleistungen

DYNAmore is dedicated to support engineers to solve non-linear mechanical problems numerically. Our tools to model and solve the problems are the finite-element software LS-DYNA as solver and LS-OPT for optimization.

We sell, teach, support, and co-develop the software LS-DYNA and LS-OPT. In addition we provide engineering services for numerical analysis and integrate simulation software in your CAE environment. The majority of our customers are from the automotive and aerospace industry.

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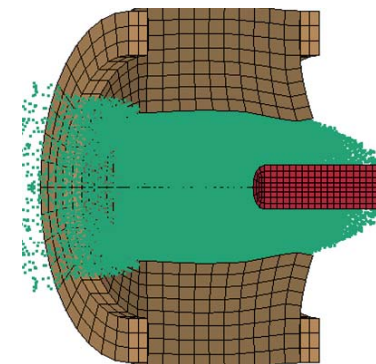
Invitation to the seminars

Blast Modeling with LS-DYNA

26 - 27 November 2012, Stuttgart, Germany

Penetration Modeling with LS-DYNA

28 - 29 November 2012, Stuttgart, Germany



Target Perforation
By Courtesy of Schwer Engineering & Consulting Services

Instructors

Paul Du Bois, Consultant;
Dr. Len Schwer, Schwer Engineering & Consulting Services



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Penetration and Blast Modeling with LS-DYNA

Penetration and blast events form a class of simulation environments well suited to the solution capabilities of LS-DYNA. LS-DYNA is unique in offering the analyst the choice of Lagrange, Eulerian (ALE) and meshfree methods, and combinations of these methods, for simulating high energy events such as penetration and perforation. In addition to high energy, these events are typically associated with large deformations, damage, and failure both on the material and structural level. During the past decade successful modeling of such damage and failure has moved steadily from a „black art“ to a widely accepted engineering practice.

These classes focuses on the application of LS-DYNA for the simulation of high energy events. The analysis methods, and modeling, are illustrated through case studies. An emphasis is placed on modeling techniques: guidelines for which technique(s) to select, insights into which techniques work well and when, and possible pitfalls in modeling choice selections. Sufficient mathematical theory is presented for each technique, especially Eulerian and meshfree methods, to provide the typical user with adequate knowledge to confidently apply the appropriate analysis technique. However, this training class is not a substitute for the in-depth treatments presented in the associated LS-DYNA training classes, i.e. „ALE/Eulerian & fluid structure interaction“ and „meshfree methods (SPH, EFG)“, respectively.

We would be very pleased to welcome you in Stuttgart.

DYNAmore GmbH



Instructors

The course instructors, Dr. Len Schwer and Paul du Bois, are well known experts with more than 50 years of LS-DYNA experience in a wide range of commercial and defense applications. This allows them to provide insights into many aspects of modeling and simulation. In addition, their presentation style has often been complemented for being clear, concise, useful, and interesting, and at times hopefully also entertaining.

Course 1: Blast Modeling with LS-DYNA

- Mathematical theory especially for Eulerian methods
- LS-DYNA keywords and options associated with typical Lagrangian analyses and additional tools to model high energy events
- Eulerian (ALE) and simple engineering solvers, and combinations of these solvers, for simulating high energy events such as blast loading
- Air blast and buried explosive charges
- Example problems to illustrate concepts and techniques
- Numerous modeling tricks and options

Date/time 26 - 27 Nov., 9:00am - 5:00pm
 Course fee Industry: 1.050,- Euro * / person
 University: 525,- Euro * / person
 Instructors Paul Du Bois, Dr. Len Schwer
 Location DYNAmore, Stuttgart
 Language English

Course 2: Penetration Modeling with LS-DYNA

- Mathematical theory: Eulerian and meshfree methods (SPH, EFG)
- Modeling of high energy events
- LS-DYNA keywords and options associated with typical Lagrangian analyses and additional tools to model high energy events
- Defense applications: protective structures, vehicle vulnerability, homeland defense topics, and terrorist threat mitigation techniques
- Example problems to illustrate concepts and techniques
- Numerous modeling tricks and options

Date/time 28 - 29 Nov., 9:00am - 5:00pm
 Course fee Industry: 1.050,- Euro * / person
 University: 525,- Euro * / person
 Instructors Paul Du Bois, Dr. Len Schwer
 Location DYNAmore, Stuttgart
 Language English



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I herewith register for ...

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- Course 2: Penetration Modeling with LS-DYNA,
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 University: 525,- Euro *
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