

#### DYNAmore GmbH

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 and provide engineering services.

Among the customers are car manufacturers, automotive suppliers, and small companies developing components, or consulting companies offering FEM analyses.

DYNAmore GmbH  
Industriestr. 2  
D-70565 Stuttgart  
Tel. +49 (0)711 - 459600 - 0  
Fax +49 (0)711 - 459600 - 29  
E-Mail: [info@dynamore.de](mailto:info@dynamore.de)  
[www.dynamore.de](http://www.dynamore.de)

#### Organization

Date: 24<sup>th</sup> November 2010

Attendance fee: Free of charge

Language: English

Venue: DYNAmore office in Stuttgart

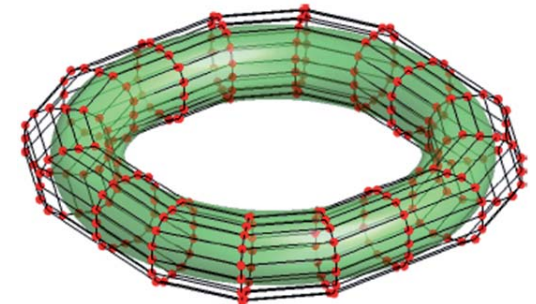
DYNAmore GmbH  
Industriestr. 2

D-70565 Stuttgart  
Germany

Invitation to the infoday (free of charge)

## NEW METHODOLOGIES AND DEVELOPMENTS IN LS-DYNA

24<sup>th</sup> November 2010, Stuttgart, Germany



**New Methodologies and Developments in LS-DYNA**

The general-purpose explicit and implicit FEM software LS-DYNA is one of the most advanced simulation tools for non-linear structural analysis. LS-DYNA is capable of simulating complex real world problems.

Permanent developments in the industrial process go along with the necessity of having a suitable software package capturing new requirements. This leads to continuous developments of new numerical methods and further enhancements in LS-DYNA.

This informational event informs on already available new methodologies in LS-DYNA and gives an outlook of current developments and upcoming features.

We would be very pleased to welcome you in Stuttgart.

Yours sincerely,

DYNAmore GmbH



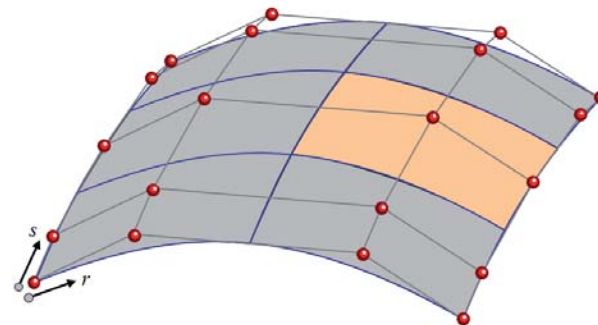
**Lecturers**

Dr. Yong Guo, is working as a software developer for LSTC. His activities are development and implementation of meshless methods in LS-DYNA.

Dr. Tobias Erhart and Dr. Stefan Hartmann are working for DYNAmore. They do software development for LS-DYNA in the fields of element and material development, contact algorithms and isogeometric approaches.

Prof. Uli Göhner is manager of FE software solutions at DYNAmore and has deep knowledge in CFD simulations.

- 13.30 Welcome and Introduction
- 13.45 Meshless Methods in LS-DYNA:  
An Overview on the Element-Free Galerkin (EFG) and the Smooth Particle Hydrodynamics (SPH) Method  
*Dr. Y. Guo (LSTC)*
- 14.15 About new Element Types and Contact Methods in LS-DYNA  
*Dr. T. Erhart (DYNAmore)*
- 14.45 Coffee break
- 15.15 The Extended Finite Element Method (X-FEM) as a new Tool to Capture the Propagation of Damage and Cracks  
*Dr. Y. Guo (LSTC)*
- 15.45 An Introduction to Isogeometric Elements in LS-DYNA  
*Dr. S. Hartmann (DYNAmore)*
- 16.15 Novel Methods in LS-DYNA 980: Computational Fluid Dynamics (CFD) and the Particle Finite Element Method (PFEM)  
*Prof. U. Göhner (DYNAmore)*
- 16.45 Discussion / Questions
- 17.00 Closure



I herewith register for the event:  
"New Methodologies and Developments in LS-DYNA"  
24<sup>th</sup> November 2010 in Stuttgart, Germany

Please contact me, I am interested in  
 LS-DYNA  
 DYNAmore services

Please put me on your mailing list.

**Sender**

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Please complete and fax to +49 (0)711 - 45 96 00 29  
or send to DYNAmore GmbH, Industriestr. 2, D-70565  
Stuttgart, Germany

Online registration at [www.dynamore.de](http://www.dynamore.de)