Design+Analysis
VISITING LECTURE

Isogeometric Analysis and Shape Optimization of Shell Structures

Dr. Josef Kiendl
Department of Civil Engineering and Architecture
University of Pavia, Italy

Abstract. Isogeometric analysis is a new method of computational analysis with the goal of merging design and analysis into one model by using a unified geometric representation. NURBS (Non-Uniform Rational B-Splines) are the most widespread technology in today's CAD modeling tools and therefore are adopted as basis functions for analysis. In this presentation, the isogeometric concept is applied to the analysis and shape optimization of shell structures. NURBS-based analysis provides advantages especially for shells, since the structural behavior of a shell is mainly determined by its geometry and therefore an accurate geometric description is essential.

Wednesday 23rd April 2014 at 2 pm
Lecture hall R3, Rakentajanaukio 4 A, Otaniemi, Espoo

We wish you welcome – coffee at 2 pm sharp, presentation a quarter after the first dose!

Jarkko Niiranen, Assistant Professor, Academy Research Fellow
Department of Civil and Structural Engineering
School of Engineering
Aalto University

Design+Analysis VISITING LECTURES target for presenting and discussing a diverse collection of topics related to computational structural engineering and building information modeling in the context of architectural and industrial design and engineering – focusing on models, methods, analysis, simulation and computing as well as software applications. Lectures are organized by assistant professors Jarkko Niiranen and Vishal Singh, Aalto University Department of Civil and Structural Engineering.

Aalto University	Postal address	Visiting address	Tel. +358 9 47001	eng.aalto.fi/en, buildtech.aalto.fi/en
School of Engineering	P.O. Box 12100	Rakentajanaukio 4		firstname.lastname@aalto.fi
Elsa Nissinen-Narbro	FI-00076 AALTO	Espoo, Finland		