

Technische Universität Wien
Institut für Diskrete Mathematik und Geometrie
Institut für Mechanik der Werkstoffe und Strukturen

Einladung

zu einem

Vortrag

von

Djordje Zloković

Serbian Academy of Sciences and Arts, Belgrade, Serbia

*The Group Supermatrix Procedure
in Mechanics and Finite Element Analysis*

Zeit: Mittwoch, 28.4.2010, 14.15 Uhr

Ort: Hörsaal 17, Hauptgebäude
Karlsplatz 13, Stiege 7, 3. Stock

Keywords: The modular group supermatrix procedure in structural analysis; Group supermatrix chain of symmetry groups; Group supermatrix procedure (GSP) in plate flexure; GSP derivation of stiffness matrices of arbitrary quadrilateral and hexahedral finite elements; GSP utilization of symmetry properties and the conventional utilization; GSP derivation of shape functions of the 64-node rectangular hexahedral finite element. Conception and development of the mathematical method referred to as the *Group supermatrix procedure*, and its applications to mechanics, analysis of structures (statics, stability, vibrations) and finite element analysis. Programmed for computer analysis and applied to complex structures in architectural, civil, and mechanical engineering.

H. Mang, H. Stachel