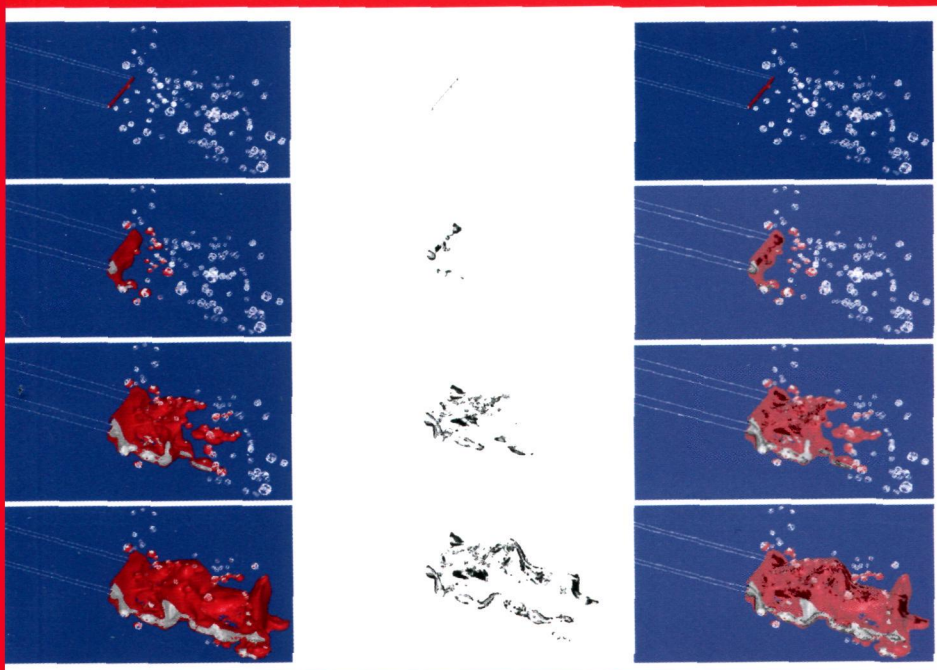


Computational Mechanics

Editor-in-Chief:
P. Wriggers

Editors:
W.K. Liu
T.E. Tezduyar
T.I. Zohdi



Computational Mechanics

Solids, Fluids, Structures, Fluid-Structure Interactions, Biomechanics, Micromechanics, Multiscale Mechanics, Materials, Constitutive Modeling, Nonlinear Mechanics, Aerodynamics

Volume 52 · Number 6 · December 2013

REVIEW PAPER

On numerical modeling of animal swimming and flight
H.-B. Deng · Y.-Q. Xu · D.-D. Chen · H. Dai · J. Wu ·
F.-B. Tian 1221

ORIGINAL PAPERS

Computational modeling of high performance steel fiber reinforced concrete using a micromorphic approach
A.E. Huespe · J. Oliver · D.F. Mora 1243

Concurrent multiresolution finite element: formulation and algorithmic aspects
S. Tang · A.M. Kopacz · S. Chan O'Keeffe · G.B. Olson ·
W.K. Liu 1265

Lie-group interpolation and variational recovery for internal variables
A. Mota · W. Sun · J.T. Ostien · J.W. Foulk III · K.N. Long 1281

Finite element computation and experimental validation of sloshing in rectangular tanks
M.A. Cruchaga · R.S. Reinoso · M.A. Storti ·
D.J. Celentano · T.E. Tezduyar 1301

Elastic large deflection analysis of plates subjected to uniaxial thrust using meshfree Mindlin-Reissner formulation
S. Sadamoto · S. Tanaka · S. Okazawa 1313

An advanced finite element formulation for piezoelectric beam structures
D. Legner · J. Wackerfuß · S. Klinkel · W. Wagner 1331

Fluid-structure interaction modeling of clusters of spacecraft parachutes with modified geometric porosity
K. Takizawa · T.E. Tezduyar · J. Boben · N. Kostov ·
C. Boswell · A. Buscher 1351

Enhanced multiple-point beam-to-beam frictionless contact finite element
P. Litewka 1365

Local/global non-intrusive crack propagation simulation using a multigrid X-FEM solver
J.-C. Passieux · J. Réthoré · A. Gravouil · M.-C. Baietto 1381

Subdomain-based error techniques for generalized finite element approximations of problems with singular stress fields
F.B. Barros · C.S. de Barcellos · C.A. Duarte · D.A.F. Torres 1395

A hybrid smoothed extended finite element/level set method for modeling equilibrium shapes of nano-inhomogeneities
X. Zhao · S.P.A. Bordas · J. Qu 1417

Element-wise algorithm for modeling ductile fracture with the Rousselier yield function
P. Areias · D. Dias-da-Costa · J.M. Sargado · T. Rabczuk 1429

A meshfree weak-strong (MWS) form method for the unsteady magnetohydrodynamic (MHD) flow in pipe with arbitrary wall conductivity
M. Dehghan · R. Salehi 1445

Experimental and computational validation of Hele-Shaw stagnation flow with varying shear stress
B.J. Tefft · A.M. Kopacz · W.K. Liu · S.Q. Liu 1463

ERRATA

Erratum to: Self-consistent linearization of non-linear BEM formulations with quadratic convergence
G.R. Fernandes · E.A. de Souza Neto 1475

Erratum to: The adapted augmented Lagrangian method: a new method for the resolution of the mechanical frictional contact problem
P. Bussetta · D. Marceau · J.-P. Ponthot 1477

Further articles can be found at www.link.springer.com

Abstracted/Indexed in *Science Citation Index*, *Science Citation Index Expanded (SciSearch)*, *SCOPUS*, *Astrophysics Data System (ADS)*, *Zentralblatt Math*, *Google Scholar*, *EBSCO*, *Academic OneFile*, *Academic Search*, *ACM Digital Library*, *ASFA*, *Current Abstracts*, *Current Contents/Engineering, Computing and Technology*, *Current Mathematical Publications*, *Digital Mathematics Registry*, *El-Compendex*, *Gale*, *Journal Citation Reports/Science Edition*, *Mathematical Reviews*, *OCLC*, *SCImago*, *Summon by Serial Solutions*, *VINITI - Russian Academy of Science*

Instructions for Authors for *Comput Mech* are available at www.springer.com/466