

Abuziarov M.H.

21

3D METHOD AND CODES FOR FLUID STRUCTURE INTERACTION
PROBLEMS IN EULER VARIABLES

Acevedo R., Kolman R., J. Trnka J., D. Mochar D. , Gabriel D.

23

BEHAVIOUR OF Ti6Al4V AUXETIC HONEYCOMB STRUCTURE
UNDER DYNAMIC LOADING

Adámek V., Valeš F., Červ J.

25

TRANSIENT WAVES IN FUNCTIONALLY GRADED STRIP UNDER
IMPACT LOADING

Bar-On B.

27

STOMATAL MICRO-TO-MACRO MECHANICS: THE ROLE OF
MECHANICAL ANISOTROPY ON BIO-MECHANICAL FUNCTION

Baronian V., Bonnet-Ben Dhia A-S., Fliss S., **Tjandrawidjaja Y.**

29

THE HALF-SPACE MATCHING METHOD FOR LAMB WAVE
SCATTERING IN ANISOTROPIC PLATES

Berjamin H., **Lombard B.**, Chiavassa G., Favrie N.

31

NONLINEAR WAVES IN SOLIDS: VISCOELASTICITY, SOFTENING,
AND FINITE-VOLUME METHODS

Bonnet M., Aquino W.

33

IDENTIFICATION OF HETEROGENEOUS ELASTIC MODULI
USING A MODIFIED ERROR IN CONSTITUTIVE EQUATION
FUNCTIONAL: THE CASE OF INTERIOR ELASTODYNAMIC DATA
AND UNDERDETERMINED BOUNDARY CONDITIONS

Chaillat S., Amlani F., Loseille A.

35

ANISOTROPIC HIGH-ORDER ADAPTIVE BOUNDARY ELEMENT
METHODS FOR 3D ACOUSTICS

- Colvez M., Cottureau R., Lopez-Caballero F.** 37
INFLUENCE OF CRUST HETEROGENEOUS PROPERTIES CLOSE TO
A FAULT ON SEISMIC WAVE PROPAGATION
- Cottureau R., Sevilla R.** 39
INFLUENCE OF MATERIAL HETEROGENEITY ON THE STABILITY
OF EXPLICIT HIGH-ORDER SPECTRAL ELEMENT METHODS
- Engelbrecht J., Berezovski A., Peets T., Tamm K.** 41
WAVE ENSEMBLES IN COMPLEX MEDIA
- Fíla T., Zlámál P., Faltá J., Adorna M.** 43
DIRECT IMPACT HOPKINSON BAR: APPLICATION ON 3D PRINTED
AUXETIC LATTICES AND OTHER CELLULAR STRUCTURES
- Joshi S., Franc J.-P., Ghigliotti G., Fivel M.** 45
SMOOTHED PARTICLE HYDRODYNAMICS SIMULATIONS OF
CAVITATION BUBBLE COLLAPSE INDUCED PLASTICITY
- Foglar M., Hájek R., Stoller J., Pachman J.** 47
BLAST OVERPRESSURE PROPAGATION IN FUNCTIONALLY
LAYERED CEMENTITIOUS COMPOSITES
- Gabriel D., Kopačka J., Kolman R., González J. A., Plešek J.** 49
2D/3D EXPLICIT FINITE ELEMENT CONTACT-IMPACT ALGORITHM
WITH BIPENALTY STABILIZATION
- Gitman I. M., Song Y.** 51
DISPERSIVE WAVE PROPAGATION IN MATERIAL WITH PERIODIC
AND RANDOM MICROSTRUCTURE
- González J. A., Kopačka J., Kolman R., Cho S. S., Park K. C.** 53
RECIPROCAL MASS MATRICES FOR ISOGEOMETRIC ANALYSIS VIA
THE METHOD OF LOCALIZED LAGRANGE MULTIPLIERS

Grabec T., Sedlák P., Seiner H., Landa M.

55

RITZ-RAYLEIGH APPROACH: NUMERICAL CALCULATION OF WAVES IN PLATES OF HIGH ANISOTROPY

Hirsehorn S.

57

ELASTIC WAVE PROPAGATION AND SCATTERING MODELLING ASSISTED NONDESTRUCTIVE TESTING AND MICROSTRUCTURED MATERIALS EVALUATION

Hora P., Machová A., Červ J., Uhnáková A.

59

ACOUSTIC EMISSION FROM FAST DISLOCATIONS IN 3D BCC IRON CRYSTALS

Hudspeth M., Chen W.

61

WAVE DEVELOPMENT IN HIGH-PERFORMANCE YARNS UNDER TRANSVERSE IMPACT

Huh H., Park C., Joo G.

63

WAVE PROPAGATION IN MEASUREMENT OF FLOW STRESS WITH HOPKINSON BAR TESTS AT HIGH STRAIN RATES

Jeon W.

65

ACOUSTIC BLACK HOLES: FROM GENERALIZATION TO REALIZATION

Khajehtourian R., Rafsanjani A., Bertoldi K., Kochmann D.

67

TRANSITION WAVES IN RECONFIGURABLE MULTISTABLE SOFT STRUCTURES

Klimeš L.

69

REPRESENTATION THEOREM FOR VISCOELASTIC WAVES WITH A NON-SYMMETRIC STIFFNESS MATRIX

Kober J., Chlada M., Zeman R.

71

GEOMETRIC RAY TRACING APPLIED TO TIME REVERSED ACOUSTICS

- Koller M.**, Kruisová A., Seiner H., Sedlák P., Román-Manso B., Miranzo P., Belmonte M., Landa M. 75
ACOUSTIC ENERGY FOCUSING IN ROBOCAST CERAMIC SCAFFOLDS
- Kolman R.**, Cho S.S., Park K.C., González J.A., Berezovki A., Hora P., Adámek V. 73
A LOCAL TIME STEPPING FOR DISCONTINUOUS WAVE PROPAGATION IN A HETEROGENEOUS BAR SCAFFOLDS
- Kruisová A.**, Kolman R., Plešek J. 77
TEMPORAL-SPATIAL DISPERSION ERRORS IN FEM MODELLING OF WAVE PROPAGATION AND IMPLICIT TIME INTEGRATION
- Ledet L.S.**, Sorokin S.V. 79
EIGENFREQUENCY ANALYSIS OF ELASTIC STRUCTURES UNDER HEAVY FLUID LOADING BY MEANS OF THE BI-ORTHOGONALITY RELATIONS
- Lints M.**, Salupere A., Dos Santos S. 81
NUMERICAL SIMULATION OF ULTRASONIC TIME REVERSAL ON DEFECTS IN CARBON FIBRE REINFORCED POLYMER
- Lukáš D.**, Malý L., Straková E., Schöberl J. 83
PARALLEL TDNNS-FEM FOR ELASTODYNAMICS OF THIN-WALLED STRUCTURES
- Mračko M.**, Kolman R., Kober J., Převorovský Z., Plešek J. 85
INFLUENCE OF TEMPERATURE IN COMPUTATIONAL TIME REVERSAL METHOD
- Naimark O.** 87
DEFECT INDUCED METASTABILITY AND POWER UNIVERSALITY OF WAVE FRONTS IN SHOCKED CONDENSED MATTER

Ocaña J. L., García-Beltrán A., Angulo I., Cordovilla F.	89
NUMERICAL SIMULATION OF PLASMA DYNAMICS AND SHOCK-INDUCED RESIDUAL STRESSES IN THE LASER SHOCK PROCESSING OF METALLIC MATERIALS	
Park K. C.	91
TOWARD NUMERICAL REALIZATION OF SPLIT-HOPKINS PRESSURE BAR: A FONDEST HOPE BY A COMPUTATIONAL MECHANICIAN	
Parma S., Červ J., Plešek J.	93
ON EQUIVALENCE OF THE STRESS AND DISPLACEMENT FORMULATION OF THE RAYLEIGH WAVES PROPAGATION PROBLEM IN TWO-DIMENSIONAL COMPOSITE MATERIAL	
Porubov A., Antonov I.	95
CONTROL OF NONLINEAR STRAIN WAVES IN DI-ATOMIC CRYSTALLINE MEDIA	
Převorovský Z., Mračko M., Kober J., Krofta J., Kolman R.	97
ACOUSTIC SOURCE LOCATION BY TIME REVERSAL SIGNAL TRANSFER FROM EXPERIMENT TO NUMERICAL MODEL (DIGITAL TWIN)	
Rejani S., Khamlichi A., El Hajjaji A.	99
THE GENERALIZATION OF THE MPSM ALGORITHM IN CASE OF CSCAN FOR THE IMAGE RECONSTRUCTION OF TH DELAMINATION DEFECT IN COMPOSITES	
Rohan E., Nguyen V.-H., Naili S.	101
HOMOGENIZATION AND BLOCH ANALYSIS OF WAVE DISPERSION IN HETEROGENEOUS FLUID SATURATED POROUS MEDIA	
Růžek B., Pšenčík I.	103
INVERSION OF P-WAVE VSP TRAVELTIMES IN ANISOTROPIC MEDIA	

Salupere A., Ratas M.

105

**2D DISCRETE SPECTRAL ANALYSIS AND EMERGENCE OF
SOLITONIC STRUCTURES**

Tkachuk A., Schaeuble A.-K., Bischoff M.

107

**VARIATIONAL CONSTRUCTION OF RECIPROCAL MASS MATRICES
FOR B-SPLINE-BASED FINITE ELEMENTS: MULTIPARAMETER
TEMPLATES AND CUSTOMIZATION**

Zakhmatov V., Chernyshov M., Kwech O., Bojko V.

109

**EXPLOSION WAVE PROPAGATION IN MASS OF SOLID PARTICLES
TO CREATION EXTINGUISHING WHIRLY FOR FAST, EFFECTIVE
REMOTE CONTROL OF LARGE, POWER FIRES**

Zaretsky E., Frage N., Meshi L.

111

**SHOCK WAVES. WHAT MAY BE LEARNT FROM THEIR PROPAGA-
TION THROUGH SOLIDS?**

LIST of REGISTERED PARTICIPANTS

113