

An explicit finite volume numerical scheme for 2D elastic wave propagation

Berezovski, Mihhail; **Berezovski, Arkadi** Applied wave mathematics II : selected topics in solids, fluids, and mathematical methods and complexity 2019 / p. 257-280 https://doi.org/10.1007/978-3-030-29951-4_12 https://www.ester.ee/record=b5303400*est

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B-spline based finite element method in one-dimensional discontinuous elastic wave propagation

Kolman, Radek; Okrouhlik, M.; **Berezovski, Arkadi**; Gabriel, Dusan; Kopačka, J.; Plešek, J. Applied mathematical modelling 2017 / p. 382-395 : ill <https://doi.org/10.1016/j.apm.2017.01.077>

Causality in strain gradient elasticity: An internal variables approach

Berezovski, Arkadi Mechanics research communications 2022 / art. 103997 <https://doi.org/10.1016/j.mechrescom.2022.103997> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Comparison of several numerical methods in one-dimensional discontinuous elastic wave propagation

Kolman, Radek; **Berezovski, Arkadi**; Gabriel, Dusan; **Tamm, Kert** 28th Nordic Seminar on Computational Mechanics, 22-23 October, Tallinn, 2015 : proceedings of the NSCM28 2015 / p. 89-92 : ill

Discontinuity-driven mesh alignment for evolving discontinuities in elastic solids

Berezovski, Mihhail; **Berezovski, Arkadi** Journal of computational physics 2020 / art. 109542, 21 p <https://doi.org/10.1016/j.jcp.2020.109542> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Dispersive waves in microstructured solids

Berezovski, Arkadi; Engelbrecht, Jüri; Salupere, Andrus; Tamm, Kert; Peets, Tanel; **Berezovski, Mihhail** International journal of solids and structures 2013 / p. 1981-1990 : ill

Dynamics of discontinuities in elastic solids

Berezovski, Arkadi; Berezovski, Mihhail Mathematics and mechanics of solids 2020 / p. 1416-1428 <https://doi.org/10.1177/1081286517718603> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Elastic wave propagation in periodical one-dimensional problems: Accurate finite element modelling

Kolman, Kolman; Cho, Sang Soo; Park, K.C.; **Berezovski, Arkadi**; Gonzalez, Joze; Hora, Petra Proceedings of 8th GACM Colloquium on Computational Mechanics For Young Scientists From Academia and Industry August 28th-30th, 2019 University of Kassel, Germany 2019 / p. 23-25 <https://doi.org/10.19211/KUP9783737650939>

Elastic wave Talbot effect in solids with inclusions

Berezovski, Arkadi; Tang, Wen-Xin; Wan, Weishi Mechanics research communications 2014 / p. 21-26 : ill

Elastic waves in microstructured solids

Berezovski, Arkadi Encyclopedia of Continuum Mechanics 2018 / 7 p. : ill http://doi.org/10.1007/978-3-662-53605-6_231-1

Elastic waves in microstructured solids

Berezovski, Arkadi Encyclopedia of Continuum Mechanics 2020 / p. 830-837 https://doi.org/10.1007/978-3-662-55771-6_231

Erratum to : Thermodynamic approach to generalized continua

Van, Peter; **Berezovski, Arkadi**; Papenfuss, Christina Continuum mechanics and thermodynamics 2014 / p. 421-422

Experimental, analytical, and numerical study of transient elastic waves from a localized source in an aluminium strip

Mračko, Michal; Adamek, Vítězslav; **Berezovski, Arkadi**; Kober, Jan; Kolman, Radek Applied acoustics 2021 / art. 107983 <https://doi.org/10.1016/j.apacoust.2021.107983> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Faasisiirdefrondid martensiitsetes tahkistes : kommentaar eesti Vabariigi teaduse aastapreemia saanud tööle

Berezovski, Arkadi Tallinna Tehnikaülikooli aastaraamat 2004 2005 / lk. 199-202

Front dynamics in inhomogeneous solids

Berezovski, Arkadi; Engelbrecht, Jüri; Maugin, Gerard A. Proceedings of the Estonian Academy of Sciences. Physics. Mathematics 2007 / 2, p. 155-161

Full field computing for elastic pulse dispersion in inhomogeneous bars

Berezovski, Arkadi; Kolman, Radek; Berezovski, Mihhail; Gabriel, Dusan; Adámek, V. Composite structures 2018 / p. 388-394 : ill <https://doi.org/10.1016/j.compstruct.2018.07.055> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Guyer-Krumhansl-type heat conduction at room temperature

Van, Peter; **Berezovski, Arkadi**; Fülöp, T.; Gróf, Gy.; Kovács, R.; Lovas, Á.; Verhás, J. EPL 2017 / art. 50005, 7 p. : ill

Heat conduction in microstructured solids under localised pulse loading

Berezovski, Arkadi Continuum mechanics and thermodynamics 2021 / p. 2493-2507 <https://doi.org/10.1007/s00161-021-01032-0>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Highlights in the research into complexity of nonlinear waves

Engelbrecht, Jüri; Berezovski, Arkadi; Soomere, Tarmo Proceedings of the Estonian Academy of Sciences 2010 / 2, p. 61-65

Influence of microstructure on thermoelastic wave propagation

Berezovski, Arkadi; Berezovski, Mihhail Acta mechanica 2013 / p. 2623-2633 : ill

Interaction of deformation waves with internal structures in solids

Engelbrecht, Jüri; Berezovski, Arkadi; Peets, Tanel; Tamm, Kert Contributions to the Foundations of Multidisciplinary Research in Mechanics : papers presented during the 24th International Congress of Theoretical and Applied Mechanics ICTAM 2016, Montreal, August 22-26, 2016. Vol. 3 2017 / p. 2236-2237 : ill http://iutam.org/wp-content/uploads/2017/02/ICTAM_Proceedings_Vol_3.pdf

Interfaces in micromorphic materials : wave transmission and reflection with numerical simulations

Berezovski, Arkadi; Giorgio, Ivan; Della Corte, Alessandro Mathematics and mechanics of solids 2016 / p. 37-51 : ill
<https://doi.org/10.1177/1081286515572244>

Internal variables as a tool for extending Navier-Stokes equations

Berezovski, Arkadi Journal of non-equilibrium thermodynamics 2022 / p. 1-14 <https://doi.org/10.1515/jnet-2021-0089> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Internal variables associated with microstructures in solids

Berezovski, Arkadi Mechanics research communications 2018 / p. 30-34 <https://doi.org/10.1016/j.mechrescom.2017.07.011> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Internal variables in thermoelasticity

Berezovski, Arkadi; Van, Peter 2017 <https://doi.org/10.1007/978-3-319-56934-5>

Internal variables representation of generalized heat equations

Berezovski, Arkadi Continuum mechanics and thermodynamics 2019 / p. 1733–1741 <https://doi.org/10.1007/s00161-018-0729-4>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

2004. aasta teaduspreemia tehnikateaduste alal töö "Faasisiirdefrondid martensiitsetes tahkistes" eest : [Arkadi Berezovski]le]

Berezovski, Arkadi Teadusmõtte Kübermeetika Instituudis 2010 / lk. 110-119 : ill

Microinertia and internal variables

Berezovski, Arkadi; Van, Peter Continuum mechanics and thermodynamics 2016 / p. 1027-1037 <http://dx.doi.org/10.1007/s00161-015-0453-2>

Mikrostruktuursed materjalid ja deformatsioonilained

Engelbrecht, Jüri; Salupere, Andrus; Berezovski, Arkadi Teadusmõtte Eestis. 4, Tehnikateadused. 2 2007 / lk. 9-15 : ill

Non-equilibrium contact quantities and compound deficiency at interfaces between discrete systems

Muschik, Wolfgang; Berezovski, Arkadi Proceedings of the Estonian Academy of Sciences. Physics. Mathematics 2007 / 2, p. 133-145

Nonlinear dispersive wave equations for microstructured solids

Berezovski, Arkadi Proceedings of the Estonian Academy of Sciences 2015 / p. 203-211 https://artiklid.elnet.ee/record=b2740520*est

Nonlinear waves in solids

Engelbrecht, Jüri; Berezovski, Arkadi; Salupere, Andrus Proceedings of International Symposium on Mechanical Waves in Solids : Zehejiang University, Hangzhou, China, May 15-18, 2006 2006 / p. 16-17

Numerical simulation of acoustic emission during crack growth in 3-point bending test

Berezovski, Arkadi; Berezovski, Mihhail Structural control & health monitoring 2017 / e1996, p. 1-8 : ill <http://doi.org/10.1002/stc.1996>

Numerical simulation of energy localization in dynamic materials

Berezovski, Mihhail; Berezovski, Arkadi Advances in mechanics of microstructured media and structures 2018 / p. 75-83
https://doi.org/10.1007/978-3-319-73694-5_5 [Article collection metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Numerical simulation of two-dimensional wave propagation in functionally graded materials

Berezovski, Arkadi; Engelbrecht, Jüri; Maugin, Gerard A. European journal of mechanics - A/Solids 2003 / p. 257-265 : ill

On computing of pulse propagation and reflection in 2d elastic waveguide

Berezovski, Arkadi Engineering mechanics 2019 : International Conference, May 13 – 16, 2019, Svratka, Czech Republic : book of full texts 2019 / p. 49–52 : ill https://www.engmech.cz/improc/2019/007_Berezovski_068.pdf

On modelling of wave propagation in microstructured solids

Engelbrecht, Jüri; Berezovski, Arkadi Estonian journal of engineering 2013 / p. 171-182 https://artiklid.elnet.ee/record=b2632885*est

On nonlinear waves in media with complex properties

Engelbrecht, Jüri; Salupere, Andrus; Berezovski, Arkadi; Peets, Tanel; Tamm, Kert Generalized models and non-classical approaches in complex materials ; 1 2018 / p. 275-286 https://doi.org/10.1007/978-3-319-72440-9_13 [Journal metrics at Scopus](#) [Article at Scopus](#)

On the exploitation of the Eshelby stress in isothermal and adiabatic conditions

Maugin, Gerard A.; Berezovski, Arkadi Proceedings of the Estonian Academy of Sciences. Physics. Mathematics 2007 / 2, p. 126-132

On the influence of microstructure on heat conduction in solids

Berezovski, Arkadi International journal of heat and mass transfer 2016 / p. 516-520
<http://dx.doi.org/10.1016/j.ijheatmasstransfer.2016.07.085>

On the Mindlin microelasticity in one dimension

Berezovski, Arkadi Mechanics research communications 2016 / p. 60-64 : ill <http://dx.doi.org/10.1016/j.mechrescom.2016.09.005>

On the modeling of microstructure influence

Berezovski, Arkadi Proceedings of 8th GACM Colloquium on Computational Mechanics For Young Scientists From Academia and Industry August 28th-30th, 2019 University of Kassel, Germany 2019 / p. 15–18 <https://doi.org/10.19211/KUP9783737650939>

On the stability of a microstructure model

Berezovski, Mihhail; Berezovski, Arkadi Computational materials science 2012 / p. 193-196 : ill
<https://www.sciencedirect.com/science/article/pii/S0927025611000516>

On the wave dispersion in microstructured solids

Berezovski, Arkadi; Yildizdag, M. Erden; Scerrato, Daria Continuum mechanics and thermodynamics 2020 / p. 569-588
<https://doi.org/10.1007/s00161-018-0683-1> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

On wave propagation in laminates with two substructures

Berezovski, Mihhail; Berezovski, Arkadi; Soomere, Tarmo; Viikmäe, Bert Estonian journal of engineering 2010 / 3, lk. 228-242 : ill

Pattern formation of elastic waves and energy localization due to elastic gratings

Berezovski, Arkadi; Engelbrecht, Jüri; Berezovski, Mihhail International journal of mechanical sciences 2015 / p. 137-144 : ill
<http://dx.doi.org/10.1016/j.jmeosci.2015.07.027>

Preface

Berezovski, Arkadi; Soomere, Tarmo Applied wave mathematics II : selected topics in solids, fluids, and mathematical methods and complexity 2019 / p. VII-XI <https://doi.org/10.1007/978-3-030-29951-4> https://www.estee.ee/record=b5303400*est

Simulation of two-dimensional thermoelastic wave propagation in inhomogeneous media

Berezovski, Arkadi; Maugin, Gerard A. 4th EUROMECH : Solid Mechanics Conference, Metz, France, June 26-30, 2000 : book of abstracts II, general sessions 2000 / p. 715

Single slit diffraction : from optics to elasticity

Berezovski, Arkadi; Engelbrecht, Jüri Wave motion 2016 / p. 35-45 : ill <http://dx.doi.org/10.1016/j.wavemoti.2015.09.002>

28th Nordic Seminar on Computational Mechanics, 22-23 October, Tallinn, 2015 : proceedings of the NSCM28

2015 https://www.estee.ee/record=b4510264*est

Thermodynamic approach to generalized continua

Van, Peter; Berezovski, Arkadi; Papenfuss, Christina Continuum mechanics and thermodynamics 2014 / p. 403-420

Thermoelastic waves in microstructured solids

Berezovski, Arkadi; Berezovski, Mihhail Continuous media with microstructure 2 2016 / p. 137-150 https://doi.org/10.1007/978-3-319-28241-1_9

Thermoelasticity with dual internal variables

Berezovski, Arkadi; Engelbrecht, Jüri; Maugin, Gerard A. Journal of thermal stresses 2011 / p. 413-430

<https://www.tandfonline.com/doi/full/10.1080/01495739.2011.564000>

A two-layer elastic strip under transverse impact loading : analytical solution, finite element, and finite volume simulations

Adámek, V.; **Berezovski, Arkadi;** Mračko, Michal; Kolman, Radek Mathematics and computers in simulation 2021 / p. 126-140

<https://doi.org/10.1016/j.matcom.2020.10.007> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Wave propagation in functionally graded materials

Berezovski, Arkadi; Engelbrecht, Jüri; Maugin, Gerard 21st International Congress of Theoretical and Applied Mechanics : August 15-21, 2004, Warsaw, Poland : ICTAM04 : abstracts and CD-ROM proceedings 2004 / p. 266

Waves in inhomogeneous solids

Berezovski, Arkadi; Berezovski, Mihail; Engelbrecht, Jüri Applied wave mathematics : selected topics in solids, fluids, and mathematical methods 2009 / p. 55-81 : ill

Waves in materials with microstructure : numerical simulation

Berezovski, Mihail; Berezovski, Arkadi; Engelbrecht, Jüri International Conference on Complexity of Nonlinear Waves : October 5-7, 2009 : book of abstracts 2009 / p. 9

Waves in materials with microstructure : numerical simulation

Berezovski, Mihail; Berezovski, Arkadi; Engelbrecht, Jüri Proceedings of the Estonian Academy of Sciences 2010 / 2, p. 99-107 : ill

Waves in microstructured materials and dispersion

Engelbrecht, Jüri; Berezovski, Arkadi; Pastrone, Franco; Braun, M. Philosophical magazine 2005 / p. 4127-4141 : ill

Waves in solids : overview

Berezovski, Arkadi Applied wave mathematics : selected topics in solids, fluids, and mathematical methods 2009 / p. 9-11

Weakly nonlocal thermoelasticity for microstructured solids : microdeformation and microtemperature

Berezovski, Arkadi; Engelbrecht, Jüri; Van, Peter Archive of applied mechanics 2014 / [13] p

Weakly nonlocal thermoelasticity for microstructured solids : microdeformation and microtemperature

Berezovski, Arkadi; Engelbrecht, Jüri; Van, Peter Archive of applied mechanics 2014 / p. 1249-1261