

### **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://doi.org/10.1007/978-3-030-29951-4_12) [https://www.ester.ee/record=b5303400\\*est](https://www.ester.ee/record=b5303400*est)

### **Applied wave mathematics II : selected topics in solids, fluids, and mathematical methods and complexity**

2019 <https://doi.org/10.1007/978-3-030-29951-4> [https://www.ester.ee/record=b5303400\\*est](https://www.ester.ee/record=b5303400*est)

### **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

### **Constitutive modeling with single and dual internal variables**

**Berezovski, Arkadi** Entropy 2023 / art. 721, 26 p <https://doi.org/10.3390/e25050721> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **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 2020 / p. 830-837 [https://doi.org/10.1007/978-3-662-55771-6\\_231](https://doi.org/10.1007/978-3-662-55771-6_231)

### **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](http://doi.org/10.1007/978-3-662-53605-6_231-1)

### **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 martensiiitsetes 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

**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  
<http://doi.org/10.1209/0295-5075/118/50005>

**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

**Influence of rapidly time-varying boundary conditions on the control of two-dimensional elastic pulses in laminates**

**Berezovski, Arkadi; Berezovski, Mihhail** Mathematics and mechanics of complex systems 2023 / p. 335-348  
<https://doi.org/10.2140/memocs.2023.11.335> Journal metrics at Scopus Article at Scopus Journal metrics at Scopus Article at WOS

**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](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** Teadusmõte 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** Teadusmõte 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](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](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

### **Numerical simulation of waves and fronts in structured materials : a thermodynamic approach**

Berezovski, Arkadi; **Engelbrecht, Jüri**; Maugin, Gerard Proceedings of the Estonian Academy of Sciences. Physics. Mathematics 2003 / 1, p. 30-42 : ill [https://artiklid.elnet.ee/record=b1011964\\*est](https://artiklid.elnet.ee/record=b1011964*est)

### **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](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](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](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.ijmecsci.2015.07.027>

### **Peaminister jagas elutööpreemiaid : [parimate teadustööde preemiad said TTÜst Margus Lopp, Tõnis Kanger, Anne Paju ja Arkadi Berezovski]**

Koch, Tuuli; Berezovski, Arkadi Eesti Päevaleht 2004 / lk. 7

### **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.ester.ee/record=b5303400\\*est](https://www.ester.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.ester.ee/record=b4510264\\*est](https://www.ester.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](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, Mihhail; 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, Mihhail; 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, Mihhail; 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 / p. 1249-1261

### **Weakly nonlocal thermoelasticity for microstructured solids : microdeformation and microtemperature**

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