Prof. Dr. HÜSNÜ DAL

Kişisel Bilgiler

İş Telefonu: +90 312 210 3578
Fax Telefonu: +90 312 210 2539
E-posta: dal@metu.edu.tr
Web: https://blog.metu.edu.tr/dal/
Posta Adresi: Orta Doğu Teknik Üniversitesi, Makina Mühendisliği Bölümü, Dumlupınar Bulvarı 1

Uluslararası Araştırmacı ID'leri
ScholarID: lDoqcdcAAAAJ
ORCID: 0000-0002-2973-3991
Publons / Web Of Science ResearcherID: K-2349-2014
ScopusID: 26031218500
Yoksis Araştırmacı ID: 132615

Eğitim Bilgileri

Post Doktora, Universitaet Stuttgart, Simulasyon Teknolojileri Mükemmeliyet Merkezi, Hesaplamalı Malzeme Tasarımı, Almanya 2012 - 2014
Post Doktora, Eidgenössische Technische Hochschule, ETHZ (The Federal Institute of Technology, Zürich), Makina Mühendisliği Fakültesi, Mekanik Merkezi, İsviçre 2011 - 2012
Doktora, Technische Universitaet Dresden, İnşaat Fakültesi, Yapı Mekaniği Ve Yapı Dinamiği Enstitüsü, Almanya 2006 - 2011
Doktora, Leipzig Universität, İnşaat Fakültesi, Yapı Mekaniği Ve Yapı Dinamiği Enstitüsü, Almanya 2005 - 2006
Yüksek Lisans, Universitaet Stuttgart, İnşaat Fakültesi, Malzemelerin Ve Yapıların Hesaplamalı Mekaniği, Almanya 2003 - 2005
Lisans, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği, Türkiye 1997 - 2001

Yabancı Diller

İngilizce, C1 İleri
Almanca, B2 Orta Üstü

Yaptığı Tezler

Doktora, Approaches to the Modeling of Inelasticity and Failure of Rubberlike Materials, Technische Universitaet Dresden, İnşaat Fakültesi, Yapı Mekaniği Ve Yapı Dinamiği Enstitüsü, 2011
Yüksek Lisans, Approaches to Modeling of Thermoviscoplastic Behavior of Glassy Polymers, Universitaet Stuttgart, Disiplinlerarası Malzemelerin Ve Yapıların Hesaplamalı Mekaniği Yüksek Lisans Programı, Mühendislik - Disiplinlerarası, 2005

Araştırma Alanları

Makina Mühendisliği, Mekanik, Katı Cisimler Mekaniği , Kırılma Mekaniği , Sonlu Elemanlar Yöntemi , Biyomekanik,

Mekanik Testler, Sürekli Ortam Mekaniği, Mühendislik ve Teknoloji

Akademik Unvanlar / Görevler

Prof. Dr., Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Makina Mühendisliği Bölümü, 2024 - Devam Ediyor
Doç. Dr., Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Makina Mühendisliği Bölümü, 2018 - 2024
Okutman, Universitaet Stuttgart, İnşaat Fakültesi, İnşaat Mühendisliği, 2012 - 2014
Araştırma Görevlisi, Eidgenössische Technische Hochschule, ETHZ (The Federal Institute of Technology, Zürich), Makine Fakültesi, Makine Mühendisliği, 2011 - 2011
Araştırma Görevlisi, Technische Universitaet Dresden, İnşaat Fakültesi, İnşaat Mühendisliği, 2006 - 2011
Araştırma Görevlisi, Universitaet Leipzig, İnşaat Fakültesi, İnşaat Mühendisliği, 2005 - 2006
Araştırma Görevlisi, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2001 - 2003

Akademik İdari Deneyim

Merkez Müdürü, Orta Doğu Teknik Üniversitesi, Rektörlük, Bilgisayar Destekli Tasarım, İmalat ve Robotik Merkezi, 2023 - Devam Ediyor
BAP Bilimsel Komisyon Üyesi, Orta Doğu Teknik Üniversitesi, Rektörlük, 2017 - Devam Ediyor
Orta Doğu Teknik Üniversitesi, Rektörlük, 2017 - Devam Ediyor

Verdiği Dersler

Yüksek Lisans
INTRODUCTION TO CONTINUUM MECHANICS, Yüksek Lisans, 2024 - 2025
Lisans
INTRODUCTION TO FINITE ELEMENT ANALYSIS, Lisans, 2024 - 2025
STRENGTH OF MATERIALS, Lisans, 2022 - 2023
APPLIED MATH. FOR MECHANICAL ENGINEERS, Lisans, 2017 - 2018
STATICS, Lisans, 2018 - 2019

Yönetilen Tezler

Dal H., Failure Analysis of Infrared Sensing Devices due to Cryogenic Cooling, Doktora, E.CAN(Öğrenci), 2023
Dal H., A GENERALIZED PHASE-FIELD APPROACH FOR THE FAILURE OF RUBBER-LIKE MATERIALS, Doktora, K.AÇIKGÖZ(Öğrenci), 2023
Dal H., Computational mechanics for soft biological tissues, Doktora, C.ALTUN(Öğrenci), 2023
Dal H., Hyperelastic Modelling Approaches to Polymeric Foams, Yüksek Lisans, Y.GARGI(Öğrenci), 2023
Dal H., Data-driven approach for rubberlike materials, Yüksek Lisans, M.ENİS(Öğrenci), 2022
Dal H., Testing, modelling and simulation of linear and circular linear shaped charges, Yüksek Lisans, M.TOP(Öğrenci), 2022
Dal H., A comparative study of anisotropic hyperelastic models of biological soft tissues, Yüksek Lisans, A.KAĞAN(Öğrenci), 2021
Dal H., Finite Element Formulations for Kirchhoff-Love Microplates, Doktora, M.KANDAZ(Öğrenci), 2020
Dal H., A diffusive crack model for fiber reinforced polymer composites, Doktora, F.AKSU(Öğrenci), 2020
Dal H., A comparative study of the fitting performance of hyperelastic constitutive models, Yüksek Lisans, Y.BADIENIA(Öğrenci), 2019
Dal H., Non-linear viscoelasticity for epoxy-based polymers : Theoretical modeling and numerical implementation, Yüksek Lisans, A.KORAL(Öğrenci), 2019

DAL H., Quasi-incompressible and quasi-inextensible element and material formulation for anisotropic medium, Yüksek Lisans, B.RODOPLU(Öğrenci), 2018
DAL H., Design of an inertia measurement device for stores, Yüksek Lisans, B.KILIÇ(Öğrenci), 2018
Dal H., Yıldırım R. O., Dynamic fracture of explosive bolt, Yüksek Lisans, B.GÖKÇE(Öğrenci), 2018
DAL H., Shape optimization of mems switches for miniaturization, Yüksek Lisans, I.AHMED(Öğrenci), 2018
DAL H., Investigation of deformation and shape memory characteristics of thermoplastic polymers, Yüksek Lisans, C.YİĞİTBAŞI(Öğrenci), 2018
DAL H., A multiobjective optimization toolbox development for parameter identification of elastomers, Yüksek Lisans, T.TEKİN(Öğrenci), 2018
DAL H., Finite strain modeling of coupled thermo-mechanical behavior of polycrystalline Ni-Ti shape memory alloys, Yüksek Lisans, V.REZAZADEH(Öğrenci), 2017
DAL H., A phase field model for the failure of artery walls: Application to rupture due to Aneursym, Yüksek Lisans, O.Gültekin(Öğrenci), 2014
DAL H., Intercalation induced stress generation in high performance Li-ion battery systems, Yüksek Lisans, C.Mohammad(Öğrenci), 2013
DAL H., A Multiscale continuum damage model for cavity growth in rubberlikematerials, Yüksek Lisans, F.Barış(Öğrenci), 2013

Araştırma Altyapısı Bilgileri

Dal H., Kauçuk Araştırma Laboratuvarı, Ağustos 2020

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

I. **Spatial variation of physical, mechanical, and thermophysical properties of 3D printed concrete across a full-scale wall**
Bayrak A. T., Shaban N., Seyedian Choubi S., Tuncer E., Yang S., Yılmaz H. D., Alkilani A. Z., Dal H., Unluer C., Gürsel Dino I., et al.
CONSTRUCTION AND BUILDING MATERIALS, cilt.431, 2024 (SCI-Expanded)
II. **HYPER-DATA: A MATLAB based optimization software for data-driven hyperelasticity**
DURNA R., AÇAN A. K., Tikenogullari O. Z., DAL H.
SOFTWAREX, 2024 (SCI-Expanded)
III. **Data-driven hyperelasticity, Part II: A canonical framework for anisotropic soft biological tissues**
TİKENOĞULLARI O. Z., AÇAN A. K., Kuhl E., DAL H.
Journal of the Mechanics and Physics of Solids, cilt.181, 2023 (SCI-Expanded)
IV. **An In Silico-Based Investigation on Anisotropic Hyperelastic Constitutive Models for Soft Biological Tissues**
DAL H., AÇAN A. K., Durcan C., Hossain M.
Archives of Computational Methods in Engineering, cilt.30, sa.8, ss.4601-4632, 2023 (SCI-Expanded)
V. **Data-driven hyperelasticity, Part I: A canonical isotropic formulation for rubberlike materials**
Dal H., Denli F. A., Açan A. K., Kaliske M.
Journal of the Mechanics and Physics of Solids, cilt.179, 2023 (SCI-Expanded)
VI. **A one-pass predictor-corrector algorithm for the inverse Langevin function**
BAŞDEMİR S., DAL H.
Mathematics and Mechanics of Solids, cilt.28, sa.4, ss.920-930, 2023 (SCI-Expanded)
VII. **Ductile–brittle failure of amorphous glassy polymers: A phase-field approach**
DAL H., Gültekin O., BAŞDEMİR S., AÇAN A. K.
Computer Methods in Applied Mechanics and Engineering, cilt.401, 2022 (SCI-Expanded)
VIII. **Temperature-dependent thermoelastic properties of GaSb and InSb semiconductors: Identification**

through ab initio DFT simulations
Baloğlu E. C., TOFFOLİ H., DAL H.
Physica B: Condensed Matter, cilt.643, 2022 (SCI-Expanded)

IX. **Electro-chemo-mechanical induced fracture modeling in proton exchange membrane water electrolysis for sustainable hydrogen production**
Aldakheel F., Kandekar C., Bensmann B., DAL H., Hanke-Rauschenbach R.
COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING, cilt.400, 2022 (SCI-Expanded)

X. **On the Performance of Isotropic Hyperelastic Constitutive Models for Rubber-Like Materials: A State of the Art Review**
DAL H., AÇIKGÖZ K., Badienia Y.
APPLIED MECHANICS REVIEWS, cilt.73, sa.2, 2021 (SCI-Expanded)

XI. **An extended eight-chain model for hyperelastic and finite viscoelastic response of rubberlike materials: Theory, experiments and numerical aspects**
DAL H., Gültekin O., AÇIKGÖZ K.
Journal of the Mechanics and Physics of Solids, cilt.145, 2020 (SCI-Expanded)

XII. **A quasi-incompressible and quasi-inextensible finite element analysis of fibrous soft biological tissues**
Gultekin O., Rodoplu B., DAL H.
BIOMECHANICS AND MODELING IN MECHANOBIOLOGY, cilt.19, sa.6, ss.2357-2373, 2020 (SCI-Expanded)

XIII. **A phase-field model for fracture of unidirectional fiber-reinforced polymer matrix composites**
Denli F. A., Gultekin O., Holzapfel G. A., DAL H.
COMPUTATIONAL MECHANICS, cilt.65, sa.4, ss.1149-1166, 2020 (SCI-Expanded)

XIV. **Computational modeling of progressive damage and rupture in fibrous biological tissues: application to aortic dissection**
Gultekin O., Hager S. P., DAL H., Holzapfel G. A.
BIOMECHANICS AND MODELING IN MECHANOBIOLOGY, cilt.18, sa.6, ss.1607-1628, 2019 (SCI-Expanded)

XV. **On the quasi-incompressible finite element analysis of anisotropic hyperelastic materials**
Gueltekin O., DAL H., Holzapfel G. A.
COMPUTATIONAL MECHANICS, cilt.63, sa.3, ss.443-453, 2019 (SCI-Expanded)

XVI. **A quasi-incompressible and quasi-inextensible element formulation for transversely isotropic materials**
Dal H.
INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN ENGINEERING, cilt.117, ss.118-140, 2019 (SCI-Expanded)

XVII. **A three-scale compressible microsphere model for hyperelastic materials**
Dal H., CANSIZ B., MIEHE C.
INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN ENGINEERING, cilt.116, sa.6, ss.412-433, 2018 (SCI-Expanded)

XVIII. **A comparative study of modified strain gradient theory and modified couple stress theory for gold microbeams**
KANDAZ M., DAL H.
ARCHIVE OF APPLIED MECHANICS, cilt.88, sa.11, ss.2051-2070, 2018 (SCI-Expanded)

XIX. **Computational cardiology: the bidomain based modified Hill model incorporating viscous effects for cardiac defibrillation**
CANSIZ B., DAL H., KALISKE M.
COMPUTATIONAL MECHANICS, cilt.62, sa.3, ss.253-271, 2018 (SCI-Expanded)

XX. **An affine microsphere approach to modeling strain-induced crystallization in rubbery polymers**
NATEGHİ A., DAL H., Keip M. -., MIEHE C.
CONTINUUM MECHANICS AND THERMODYNAMICS, cilt.30, sa.3, ss.485-507, 2018 (SCI-Expanded)

XXI. **Numerical aspects of anisotropic failure in soft biological tissues favor energy-based criteria: A rate-dependent anisotropic crack phase-field model**

Gueltekin O., DAL H., Holzapfel G. A.
COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING, cilt.331, ss.23-52, 2018 (SCI-Expanded)

XXII. **Micro-sphere based viscoplastic constitutive model for uncured green rubber**
DAL H., ZOPF C., Kaliske M.
INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES, cilt.132, ss.201-217, 2018 (SCI-Expanded)

XXIII. **Computational cardiology: A modified Hill model to describe the electro-visco-elasticity of the myocardium**
CANSIZ B., DAL H., KALISKE M.
COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING, cilt.315, ss.434-466, 2017 (SCI-Expanded)

XXIV. **A phase-field model for chemo-mechanical induced fracture in lithium-ion battery electrode particles**
MIEHE C., DAL H., SCHAENZEL L. -., RAINA A.
INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN ENGINEERING, cilt.106, sa.9, ss.683-711, 2016 (SCI-Expanded)

XXV. **An orthotropic viscoelastic material model for passive myocardium: theory and algorithmic treatment**
CANSIZ F. B. C., Dal H., KALISKE M.
COMPUTER METHODS IN BIOMECHANICS AND BIOMEDICAL ENGINEERING, cilt.18, sa.11, ss.1160-1172, 2015 (SCI-Expanded)

XXVI. **Computational electro-chemo-mechanics of lithium-ion battery electrodes at finite strains**
Dal H., Miehe C.
COMPUTATIONAL MECHANICS, cilt.55, ss.303-325, 2015 (SCI-Expanded)

XXVII. **A fully implicit finite element method for bidomain models of cardiac electromechanics**
Dal H., Goektepe S., Kalıske M., Kuhl E.
COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING, cilt.253, ss.323-336, 2013 (SCI-Expanded)

XXVIII. **A constitutive model for finite deformation of amorphous polymers**
FLEISCHHAUER R., Dal H., KALISKE M., SCHNEIDER K.
INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES, cilt.65, sa.1, ss.48-63, 2012 (SCI-Expanded)

XXIX. **Characterization of fracture processes by continuum and discrete modelling**
KALISKE M., Dal H., FLEISCHHAUER R., JENKEL C., NETZKER C.
COMPUTATIONAL MECHANICS, cilt.50, sa.3, ss.303-320, 2012 (SCI-Expanded)

XXX. **A fully implicit finite element method for bidomain models of cardiac electrophysiology**
Dal H., GÖKTEPE S., KALISKE M., Kuhl E.
COMPUTER METHODS IN BIOMECHANICS AND BIOMEDICAL ENGINEERING, cilt.15, sa.6, ss.645-656, 2012 (SCI-Expanded)

XXXI. **An endochronic plasticity formulation for filled rubber**
NETZKER C., Dal H., KALISKE M.
INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES, cilt.47, ss.2371-2379, 2010 (SCI-Expanded)

XXXII. **Bergstrom-Boyce model for nonlinear finite rubber viscoelasticity: theoretical aspects and algorithmic treatment for the FE method**
Dal H., KALISKE M.
COMPUTATIONAL MECHANICS, cilt.44, sa.6, ss.809-823, 2009 (SCI-Expanded)

XXXIII. **A micro-continuum-mechanical material model for failure of rubber-like materials: Application to ageing-induced fracturing**
Dal H., KALISKE M.
JOURNAL OF THE MECHANICS AND PHYSICS OF SOLIDS, cilt.57, sa.8, ss.1340-1356, 2009 (SCI-Expanded)

XXXIV. **Fracture mechanical behaviour of visco-elastic materials: application to the so-called dwell-effect**
NAESER B., KALISKE M., Dal H., NETZKER C.
ZAMM-ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK, cilt.89, sa.8, ss.677-686, 2009 (SCI-Expanded)

Diğer Dergilerde Yayınlanan Makaleler

I. **Growth-induced instabilities for transversely isotropic hyperelastic materials**
Altun C., Gürses E., Dal H.
Mechanics of Soft Materials, cilt.5, sa.7, ss.1-22, 2023 (Hakemli Dergi)

II. **Finite Element Analyses of the Modified Strain Gradient Theory Based Kirchhoff Microplates**
Kandaz M., DAL H.
SURFACES, cilt.4, sa.2, ss.115-156, 2021 (ESCI)

III. **ANALYSIS OF GOLD MICRO-BEAMS WITH MODIFIED STRAIN GRADIENT THEORY**
DAL H.
Anadolu Üniversitesi Bilim Ve Teknoloji Dergisi A - Uygulamalı Bilimler ve Mühendislik, cilt.18, ss.663-681, 2017 (Hakemli Dergi)

Kitaplar

I. **Macroscopical Modeling and Numerical Simulation for the Characterization of Crack and Durability Properties of Particle-Reinforced Elastomers**
Behnke R., DAL H., Geissler G., Naeser B., Netzker C., Kaliske M.
Fracture Mechanics and Statistical Mechanics of Reinforced Elastomeric Blends, Grellmann, Wolfgang and Heinrich, Gert and Kaliske, Michael and Klüppel, Manfred and Schneider, Konrad and Vilgis, Thomas, Editör, Springer Berlin Heidelberg, ss.70-167, 2013

Hakemli Bilimsel Toplantılarda Yayımlanmış Bildiriler

I. **A comparative case study for fatigue lifetime predictors on EPDM rubber**
Tanış B. E., Başdemir S., DAL H., Bilal H.
13th European Conference on Constitutive Models for Rubber, ECCMR 2024, İstanbul, Türkiye, 26 - 28 Haziran 2024, ss.255-261

II. **Constitutive modelling of amplitude dependent dynamic response of rubber-like materials**
Yayla A. U., DURNA R., DAL H.
13th European Conference on Constitutive Models for Rubber, ECCMR 2024, İstanbul, Türkiye, 26 - 28 Haziran 2024, ss.72-78

III. **A stochastic phase-field approach for the failure of rubberlike materials**
AÇIKGÖZ K., Efe Tanış B., DAL H.
13th European Conference on Constitutive Models for Rubber, ECCMR 2024, İstanbul, Türkiye, 26 - 28 Haziran 2024, ss.211-216

IV. **A data-driven constitutive model for compressible polymeric foams**
AÇAN A. K., Gargı Y., Başdemir S., DAL H.
13th European Conference on Constitutive Models for Rubber, ECCMR 2024, İstanbul, Türkiye, 26 - 28 Haziran 2024, ss.31-37

V. **Coupled thermo-viscoplastic fracture model for ductile-brittle failure of amorphous glassy polymers with phase-field approach**
Dal H., Başdemir S., Gültekin O.
92nd Annual Meeting of the International Association of Applied Mathematics and Mechanics (GAMM), Aachen, Almanya, 15 - 19 Ağustos 2022, cilt.22, ss.1-6

VI. **Dispersion-type Anisotropic Viscoelasticity: Model Validation for Myocardium**
Açan A. K., Altun C., Dal H.
92nd Annual Meeting of the International Association of Applied Mathematics and Mechanics (GAMM), Aachen, Almanya, 15 - 19 Ağustos 2022, cilt.23, sa.1, ss.1-6

VII. **Extruder Design of Printable Composites**
Hashemzadeh A., Tunçer E., Yaman U., Dal H., Meral Akgül Ç.
Additive Manufacturing Conference, Aydın, Türkiye, 6 - 08 Ekim 2022, ss.76-77

VIII. **Two novel Kirchhoff plate finite elements for the modified strain gradient theory**
Kandaz M., DAL H.
90th Annual Meeting of the Gesellschaft für Angewandte Mathematik und Mechanik (GAMM), 18 - 22 Şubat 2019, cilt.19

IX. **A Quasi-Incompressible and Quasi-Inextensible Finite Element Implementation of Fibrous Soft Biological Tissues**
Gültekin O., Rodoplu B., Dal H.
Beyond 2019: Computational Science and Engineering Conference, Ankara, Türkiye, 9 - 11 Eylül 2019, ss.35

X. **A Crack Phase-field Model to Analyze Aortic Dissections**
Holzapfel G. A., Gültekin O., Hager S. P., Dal H.
COMPLAS 2019 15th International Conference on Computational Plasticity–Fundamentals and Applications, Barcelona, İspanya, 3 - 05 Eylül 2019, ss.1

XI. **A phase-field approach to viscoelastic fracture in rubbery polymers**
Denli F. A., Gültekin O., Dal H.
IWPDF 2019 1st International Workshop on Plasticity, Damage and Fracture of Engineering Materials, Ankara, Türkiye, 22 - 23 Ağustos 2019, ss.1

XII. **Phase-field approach to model fracture in human aorta**
Gültekin O., Holzapfel G. A., Dal H.
IWPDF 2019 1st International Workshop on Plasticity, Damage and Fracture of Engineering Materials, Ankara, Türkiye, 22 - 23 Ağustos 2019, ss.1

XIII. **Nonlinear compressible finite viscoleasticity of epoxy-based polymers**
Dal H., Welschinger F., Gromala P. J., Han B.
11th European Conference on Constitutive Models for Rubber, 2019, Nantes, Fransa, 25 - 27 Haziran 2019, ss.335-340

XIV. **A comparative study on hyperelastic constitutive models on rubber: State of the art after 2006**
Dal H., Badienia Y., Acikgoz K., Denli F. A.
11th European Conference on Constitutive Models for Rubber, 2019, Nantes, Fransa, 25 - 27 Haziran 2019, ss.239-244

XV. **A Comparative Study on the Hyperelastic Constitutive Models for Rubber**
Dal H.
Workshop on "Plasticity, Damage and Fracture of Engineering Materials", Ankara, Türkiye, 25 Ekim 2018, ss.9

XVI. **Numerical Modeling of Rupture in Human Arterial Walls**
Gültekin O., Dal H., Holzapfel G. A.
WCB 2018 8th World Congress of Biomechanics, Dublin, İrlanda, 8 - 12 Temmuz 2018, ss.1-2

XVII. **A Phase-field Approach to Model Aortic Dissections**
Gültekin O., Dal H., Holzapfel G. A.
ESMC 2018 10th European Solid Mechanics Conference, Bologna, İtalya, 2 - 06 Temmuz 2018, ss.1

XVIII. **MÜHİMMAT SİSTEMLERİ İÇİN KÜTLE ÖZELLİKLERİ ÖLÇÜMÜ YAPAN TEST DÜZENEĞİ TASARIMI**
Kılıç B., Dal H., Tüzün A.
SAVTEK 9. Savunma Teknolojileri Kongresi, Ankara, Türkiye, 27 - 29 Haziran 2018

XIX. **A rate dependent phase field approach for the failure of rubberlike materials**
Aksu Denli F., Dal H.
6th European Conference on Computational Mechanics (Solids, Structures and Coupled Problems) (ECCM 6) and the 7th European Conference on Computational Fluid Dynamics (ECFD 7), Glasgow, Birleşik Krallık, 11 - 15 Haziran 2018, ss.1

XX. **Affine Full Network Model for Strain-Induced Crystallization in Rubbery Polymers**
NATEGHİ A., DAL H., KEİP M. A., Miehe C.
Proceedings of the 7th GACM Colloquium on Computational Mechanicsfor Young Scientists from Academia and

Industry, 11 - 13 Ekim 2017

XXI. **A Novel Parameter Identification Toolbox for the Selection of Hyperelastic ConstitutiveModels from Experimental Data**
DAL H., BADİENİA Y., AÇIKGÖZ K., AKSU DENLİ F.
Proceedings of the 7th GACM Colloquium on Computational Mechanicsfor Young Scientists from Academia and Industry, 11 - 13 Ekim 2017

XXII. **CRACK PHASE-FIELD MODELING OF ANISOTROPIC RUPTURE IN FIBROUS SOFT TISSUES**
GUELTEKIN O., DAL H., HOLZAPFEL G. A.
14th International Conference on Computational Plasticity - Fundamentals and Applications (COMPLAS), Barcelona, İspanya, 5 - 07 Eylül 2017, ss.139-150

XXIII. **A quasi-inextensible and quasi-incompressible finite element formulation for transversely anisotropic hyperelastic solids and soft biological tissues**
DAL H., RODOPLU B.
XIV International Conference on Computational Plasticity. Fundamentals and Applications, 5 - 07 Eylül 2017

XXIV. **Analysis of Gold Microbeams with Higher Order Continuum Theories**
KANDAZ M., DAL H., ÜNLÜ M.
88th Annual Meeting of the International Association of Applied Mathematics and Mechanics, Weimar, Almanya, 6 - 10 Mart 2017

XXV. **Phase-Field Models for the Failure of Anisotropic Continua**
DAL H., GÜLTEKİN O., AKSU DENLİ F., HOLZAPFEL G.
88th Annual Meeting of the International Association of Applied Mathematics and Mechanics, Weimar, Almanya, 6 - 10 Mart 2017

XXVI. **Electro Chemo Mechanics and Fracture of Li İon Battery Electrodes**
DAL H.
Multiscale phenomena in electrochemical and porous systems, 14 - 16 Haziran 2016

XXVII. **A PHASE FIELD APPROACH TO MODEL FRACTURE OF ARTERIAL WALLS**
GÜLTEKİN O., DAL H., HOLZAPFEL G. A.
European Congress on Computational Methods in Applied Sciences and Engineering, GİRİT, Yunanistan, 5 - 10 Haziran 2016

XXVIII. **A quasi inextensible element formulation for anisotropic continuum**
DAL H.
European Congress on Computational Methods in Applied Sciences and Engineering, GİRİT, Yunanistan, 5 - 10 Haziran 2016

XXIX. **Computational Modeling of Multi physics Phenomena in Lithium Ion Battery Electrodes**
DAL H.
EUROPEAN CONFERENCE ON NUMERICAL MATHEMATICS AND ADVANCED APPLICATIONS, Ankara, Türkiye, 14 - 18 Eylül 2015

XXX. **Fully Coupled Cardiac Electromechanics with Orthotropic Viscoelastic Effects**
CANSIZ B., DAL H., KALISKE M.
IUTAM/EUROMECH Symposium Dynamics of Capsules, Vesicles and Cells in Flow (DYNACAPS), Compiegne, Fransa, 15 - 19 Temmuz 2014, ss.124-133

XXXI. **Computational modeling of cardiac tissue with strongly coupled electromechanics and orthotropic viscoelastic effects**
Cansiz B., DAL H., Kaliske M.
GAMM Annual Scientific Conference, 10 - 14 Mart 2014, cilt.14, ss.119-120

XXXII. **Coupled chemomechanics and phase field modeling of failure in electrode materials of Li ion batteries**
DAL H., Miehe C.
GAMM Annual Scientific Conference, 18 - 22 Mart 2013, cilt.13, ss.207-208

XXXIII. **On Micromechanically Based Approaches to Failure in Polymers**
SCHÄNZEL L., DAL H., Miehe C.

GAMM Annual Scientific Conference, 18 - 22 Mart 2013, cilt.13, ss.557-560

XXXIV. **Phase field modeling of fracture in rubbery polymers**
Schaenzel L., DAL H., Miehe C.
8th European Conference on Constitutive Models for Rubbers (ECCMR), San Sebastian, İspanya, 25 - 28 Haziran 2013, ss.335-341

XXXV. **A Multiscale continuum damage model for cavity growth in rubberlike materials**
DAL H., Cansiz B., Miehe C.
8th European Conference on Constitutive Models for Rubbers (ECCMR), San Sebastian, İspanya, 25 - 28 Haziran 2013, ss.183-189

XXXVI. **Numerical aspects on computational homogenization of epoxy glass composites**
FLEİSCHHAUER R., DAL H., Kaliske M.
GAMM Annual Scientific Conference, 26 - 30 Mart 2012, cilt.12, ss.425-426

XXXVII. **A new continuum approach to the coupling of shear yielding and crazing with fracture in glassy polymers**
SCHANZEL L., DAL H., Miehe C.
GAMM Annual Scientific Conference, 26 - 30 Mart 2012, cilt.12, ss.337-338

XXXVIII. **An extended tube model for thermo viscoelasticity of rubberlike materials Theory and numerical implementation**
Behnke R., DAL H., Kaliske M.
European Conference on Constitutive Models for Rubber VII, 20 - 23 Eylül 2011, ss.87-92

XXXIX. **A three field bi domain based approach to the strongly coupled electromechanics of the heart**
DAL H., GÖKTEPE S., Kaliske M., Kuhl E.
GAMM Annual Scientific Conference, 18 - 21 Nisan 2011, cilt.11, ss.931-934

XL. **An extended tube model for thermo viscoelasticity of rubberlike materials Parameter identification and examples**
BEHNKE R., DAL H., Kaliske M.
GAMM Annual Scientific Conference, 18 - 21 Nisan 2011, cilt.11, ss.353-354

XLI. **Thermoviscoelasticity of fibre reinforced rubbery polymers**
DAL H., Kaliske M., HİCKMANN R., CHERİF C., JURK R., HEİNRİCH G.
GAMM Annual Scientific Conference, 22 - 26 Mart 2010, cilt.10, ss.287-288

XLII. **Micromechanical modelling and two scale simulation of epoxy glass composites with interphases and interfaces**
Fleischhauer R., DAL H., Kaliske M.
GAMM Annual Scientific Conference, 22 - 26 Mart 2010, cilt.10, ss.407-408

XLIII. **A micro-continuum-mechanical material model for failure of rubber-like materials**
DAL H., Kaliske M., Nasdala L.
6th European Conference on Constitutive Models for Rubber, Dresden, Almanya, 7 - 10 Eylül 2009, ss.401-402

XLIV. **A micro macro approach to the failure of rubber like materials**
DAL H., Kaliske M.
GAMM Annual Scientific Conference, 31 Mart - 04 Nisan 2008, cilt.8, ss.10413-10414

XLV. **Computational aspects of Bergstrom-Boyce finite viscoelasticity model**
DAL H., Kaliske M., Nasdala L.
5th European Conference on Constitute Models for Rubber, Paris, Fransa, 4 - 07 Eylül 2007, ss.241-242

XLVI. **Fracture of viscoelastic materials**
Kaliske A., Naeser B., DAL H.
5th European Conference on Constitute Models for Rubber, Paris, Fransa, 4 - 07 Eylül 2007, ss.185-186

XLVII. **Fracture mechanical behaviour of visco elastic materials**
NAESER B., DAL H., Kaliske M.
Sixth International Congress on Industrial Applied Mathematics (ICIAM07) and GAMM Annual Meeting, 26 - 30 Mart 2007, cilt.7, ss.1090103-1090104

XLVIII. **An Approach to the Modeling of Physical Ageing in Rubbery Polymers**

DAL H., Kaliske M.
GAMM Annual Scientific Conference, 27 - 29 Mart 2006, cilt.6, ss.363-364

Desteklenen Projeler

ERTEKİN BOLELLİ Ş., AKAR G., EREN P. E., GÜRBÜZ T., AÇIKGÖZ K., YAMAN U., DAL H., Yükseköğretim Kurumları Destekli Proje, Towards Digital Transformation: AI Assisted Smart Flexible Manufacturing, 2024 - Devam Ediyor
AKGÜL Ç., ANKARALI M. M., DAL H., Yükseköğretim Kurumları Destekli Proje, P3DPC Effective digital printing of sustainable concretes considering printing delay time and speed, 2022 - Devam Ediyor
DAL H., AÇIKGÖZ K., AÇAN A. K., Yükseköğretim Kurumları Destekli Proje, KISA LİFLERLE TAKVİYE EDİLMİŞ POLİMERİK MALZEMELERİN YIRTILMA ÖZELLİKLERİNİN DENEYSEL VE HESAPLAMALI OLARAK İNCELENMESİ, 2021 - Devam Ediyor
Dal H., Şirket, Yapıştırıcı FEM Modelleme, 2021 - 2022
Dal H., Şirket, Kauçuk Türü Malzemelerin Karakterizasyonu ve Sanal Benzetim Yöntemlerinin Geliştirilmesi, 2021 - 2022
DAL H., AÇIKGÖZ K., AKSU DENLİ F., HASHEM ZADEH A. A., Yükseköğretim Kurumları Destekli Proje, Kauçuk Türü Malzemelerin Elastik Olmayan ve Yırtılma Davranışının Deneysel İncelenmesi, 2020 - 2022
DAL H., GÜLTEKİN O., Yükseköğretim Kurumları Destekli Proje, Epoksi Tabanlı Kalıp Bileşiklerinin Termo-visko-elastik Davranışının Deneysel ve Sayısal Analizi, 2019 - 2022
Dal H., Diğer Özel Kurumlarca Desteklenen Proje, SOĞUTMALI KIZILÖTESİ SENSÖR TERMO-MEKANİK GERİNİM OPTİMİZASYONU VE ÖMÜR TESTLERİNE GİRDİ SAĞLAYACAK AR-GE PROJESİ, 2019 - 2020
DAL H., TÜBİTAK Projesi, Nems Ve Mems Mikroyapılar İçin Yüksek Mertebe Davranış Modeli Geliştirilmesi, 2017 - 2020
Dal H., Diğer Özel Kurumlarca Desteklenen Proje, Hiperelastik Malzemelerin Farklı Yükler Altında Karakterizasyonu AR-GE Projesi, 2018 - 2019
Dal H., Ünlü M., TÜBİTAK Projesi, Terahertz Frekansları Için Ayarlanabilir Yüzey Plazmon Polariton Dalga Kılavuzlarının Geliştirilmesi,, 2016 - 2019
Dal H., Teknopark, Extension of Bergström-Boyce Model to take into account volumetric viscoelastic effects, 2018 - 2018
DAL H., TÜBİTAK Projesi, Kauçuk Türü Malzemeler Için Inelastik Yırtılma Ve Kavitasyon Modeli Geliştirilmesi, 2016 - 2018
DAL H., TÜBİTAK Projesi, Anizotropik Malzemeler icin Faz Alani Yaygin Catlak Modeli, 2014 - 2016

Bilimsel Kuruluşlardaki Üyelikler / Görevler

Gesellschaft für Allgemeine Mathematik und Mechanik, Üye, 2012 - Devam Ediyor , Almanya

Bilimsel Yayınlarda Hakemlikler

ACTA MECHANICA, SCI Kapsamındaki Dergi, Ağustos 2023
COMPUTATIONAL MECHANICS, SCI Kapsamındaki Dergi, Nisan 2023
JOURNAL OF THE MECHANICS AND PHYSICS OF SOLIDS, SCI Kapsamındaki Dergi, Mart 2023
INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES, SCI Kapsamındaki Dergi, Aralık 2020
CONTINUUM MECHANICS AND THERMODYNAMICS, SCI Kapsamındaki Dergi, Kasım 2020
COMPUTATIONAL MECHANICS, SCI Kapsamındaki Dergi, Ekim 2020
JOURNAL OF THE MECHANICS AND PHYSICS OF SOLIDS, SCI Kapsamındaki Dergi, Eylül 2020
CONTINUUM MECHANICS AND THERMODYNAMICS, SCI Kapsamındaki Dergi, Temmuz 2020
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, SCI Kapsamındaki Dergi, Temmuz 2020
JOURNAL OF THE MECHANICS AND PHYSICS OF SOLIDS, SCI Kapsamındaki Dergi, Mayıs 2020
COMPUTATIONAL MECHANICS, SCI Kapsamındaki Dergi, Ocak 2020
Construction And Building Materials, SCI-E Kapsamındaki Dergi, Aralık 2019

JOURNAL OF THE MECHANICS AND PHYSICS OF SOLIDS, SCI Kapsamındaki Dergi, Ekim 2019
Mechanics Of Materials, SCI Kapsamındaki Dergi, Ekim 2019
Journal Of The Mechanics And Physics Of Solids, SCI Kapsamındaki Dergi, Temmuz 2019
EUROPEAN JOURNAL OF MECHANICS A-SOLIDS, SCI Kapsamındaki Dergi, Ocak 2019
Applied Computing and Informatics, Diğer Dergiler, Kasım 2018
EUROPEAN JOURNAL OF MECHANICS A-SOLIDS, SSCI Kapsamındaki Dergi, Ekim 2018
CONTINUUM MECHANICS AND THERMODYNAMICS, SCI Kapsamındaki Dergi, Ağustos 2018
JOURNAL OF THE MECHANICS AND PHYSICS OF SOLIDS, SCI Kapsamındaki Dergi, Temmuz 2018
Journal Of The Mechanics And Physics Of Solids, SCI Kapsamındaki Dergi, Nisan 2018
ADVANCED COMPOSITE MATERIALS, SCI-E Kapsamındaki Dergi, Şubat 2018

Etkinlik Organizasyonlarındaki Görevler

Yalçınkaya T., Dal H., Gürses E., 1st International Workshop on Plasticity, Damage and Fracture of Engineering Materials, Bilimsel Kongre / Sempozyum Organizasyonu, Ankara, Türkiye, Ağustos 2019
Dal H., 11th European Conference on Constitutive Models for Rubber, Bilimsel Kongre / Sempozyum Organizasyonu, Fransa, Haziran 2019
Dal H., Ekip M. A., Kuhn C., PHASE-FIELD MODELS FOR CRACKING IN COMPLEX MATERIALS, Bilimsel Kongre / Sempozyum Organizasyonu, Birleşik Krallık, Haziran 2018

Metrikler

Yayın: 87
Atıf (WoS): 1099
Atıf (Scopus): 1202
H-İndeks (WoS): 19
H-İndeks (Scopus): 20

Davetli Konuşmalar

Computational mechanics of polymeric materials across the scales, Seminer, Universitaet Stuttgart, Almanya, Temmuz 2019

Akademi Dışı Deneyim

ANOVA MÜHENDİSLİK, Danışmanlık
KARA HARP OKULU MAKİNE MÜHENDİSLİĞİ BÖLÜMÜ, Okutmanlık
Stuttgart Üniversitesi, Doktora sonrası Araştırmacı - Okutma
ETH Zurich, Doktora sonrası Araştırmacı