

## Prof. Dr. HÜSNÜ DAL

### Kişisel Bilgiler

İş Telefonu: [+90 312 210 3578](tel:+903122103578)

Fax Telefonu: [+90 312 210 2539](tel:+903122102539)

E-posta: [dal@metu.edu.tr](mailto: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: [IDocdcAAAAJ](https://scholar.google.com/citations?hl=idocdcAAAAJ)

ORCID: [0000-0002-2973-3991](https://orcid.org/0000-0002-2973-3991)

Publons / Web Of Science ResearcherID: [K-2349-2014](https://publons.com/author/12349214)

ScopusID: [26031218500](https://scopus.com/authid/detail.uri?authorid=26031218500)

Yoksis Araştırmacı ID: [132615](https://yoksis.metu.edu.tr/yoksis/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,

## 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

INTRODUCTION TO FINITE ELEMENT ANALYSIS, Lisans, 2024 - 2025

INTRODUCTION TO CONTINUUM MECHANICS, Yüksek 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 Aneurysm, 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 rubberlike materials, 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., Acan 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., TOFFOLÌ 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., Kaliske 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 FÜR 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 Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar**

- 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 viscoelasticity 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 DÜZENEGİ 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 Mechanics for Young Scientists from Academia and

Industry, 11 - 13 Ekim 2017

- XXI. **A Novel Parameter Identification Toolbox for the Selection of Hyperelastic Constitutive Models from Experimental Data**  
DAL H., BADIENIA Y., AÇIKGÖZ K., AKSU DENLİ F.  
Proceedings of the 7th GACM Colloquium on Computational Mechanics for 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 Ion 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.  
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- XXVIII. **A quasi inextensible element formulation for anisotropic continuum**  
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- XXIX. **Computational Modeling of Multi physics Phenomena in Lithium Ion Battery Electrodes**  
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- XXX. **Fully Coupled Cardiac Electromechanics with Orthotropic Viscoelastic Effects**  
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- XXXIII. **On Micromechanically Based Approaches to Failure in Polymers**  
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## 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

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## Bilimsel Kuruluşlardaki Üyelikler / Görevler

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## Bilimsel Hakemlikler

ACTA MECHANICA, SCI Kapsamındaki Dergi, Ağustos 2023

COMPUTATIONAL MECHANICS, SCI Kapsamındaki Dergi, Nisan 2023

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JOURNAL OF THE MECHANICS AND PHYSICS OF SOLIDS, SCI Kapsamındaki Dergi, Ekim 2019  
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### **Metrikler**

Yayın: 87  
Atf (WoS): 1099  
Atf (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