Curriculum Vitae

Univ.-Prof. Dr.-Ing. Tim Ricken

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Geburtsdatum, -ort 08.03.1971, Essen

Ausbildung und Werdegang

seit 08/2017	Direktor des Instituts für Statik und Dynamik der Luft- und Raumfahrtkonstruktionen, Fakultät Luft- und Raumfahrttechnik und Geodäsie, Universität Stuttgart
10/2011 – 07/2017	Lehrstuhlinhaber für Mechanik Statik Dynamik, Fakultät Architektur und Bauingenieurwesen, TU Dortmund
04/2011 – 09/2011	Lehrstuhlvertretung für Baumechanik und Statik, Fakultät Architektur und Bauingenieurwesen, TU Dortmund
03/2011 – 09/2011	Akademischer Rat, Universität Duisburg-Essen
03/2006 – 02/2011	Juniorprofessor für Computational Mechanics, Univ. Duisburg-Essen
06/2002 – 02/2006	Postdoc im Fachgebiet Mechanik an der Universität Duisburg-Essen (bei Prof. J. Schröder)
05/1998 – 05/2002	Wissenschaftlicher Mitarbeiter und Promotion *„mit Auszeichnung“* im Fachgebiet Mechanik an der Universität Essen (bei Prof. R. de Boer)
10/1992 – 04/1998	Studium der Fachrichtung Bauingenieurwesen an der Universität Essen, Konstruktiver Ingenieurbau
10/1993 – 04/1998	Tutor im Fachgebiet Mechanik
08/1996 – 02/1997	Stud. Hilfskraft bei der Ingenieurbürogemeinschaft Bender & Borns
1991 – 1992	Zivildienst
1982 – 1991	Gymnasium an der Grashofstraße, Essen, Abitur

Akademische Abschlüsse und Berufungen

08/2017	Berufung zum Universitätsprofessor (W3) für *„Statik und Dynamik der Luft- und Raumfahrtkonstruktionen“* an der Universität Stuttgart
10/2011	Berufung zum Universitätsprofessor (W3) für *„Mechanik Statik Dynamik“* an der Technischen Universität Dortmund
11/2008	Positive Evaluation der Juniorprofessur *„Computational Mechanics“*, Universität Duisburg-Essen
03/2006	Berufung zum Juniorprofessor für *„Computational Mechanics“*, Universität Duisburg-Essen, positive Evaluation im November 2008
06/2002	Promotion im Fachgebiet Mechanik an der Universität Essen, Thema: *„Kapillarität in porösen Medien - theoretische Untersuchung und numerische Simulation“*, Note: *„mit Auszeichnung“*
02/1998	Diplom im Fachgebiet Mechanik an der Universität Essen, Thema: *„Phasenübergänge in porösen Medien“*, Note der Diplomarbeit: *„sehr gut“*, Gesamtnote Diplom: *„gut“*

Funktionen & Auszeichnung

seit 2024	Sprecher des DFG Scherpunktprogramms SPP2311
seit 2023	Sprecher des BMBF Verbundforschungsprojekts ATLAS
seit 2022	Mitglied im EUROMECH Advisory Board
seit 2020	Stellvertretender Sprecher für das DFG Scherpunktprogramm SPP2311
seit 2019	im Editorial Board der Zeitschrift *„Archive of Applied Mechanics“*
seit 2019	Vorsitzender des GAMM-Fachausschusses *„Computational Biomechanics“*
2019 – 2024	Vorstandsrat der Gesellschaft für angewandte Mathematik und Mechanik (GAMM)
2003	Preis der Universität Duisburg-Essen für herausragende Promotionsleistungen

Akademische Selbstverwaltung

seit 2020	Mitglied des *„Senatsausschusses Struktur“* der Universität Stuttgart
seit 2017	Mitglied der *„Vertrauenskommission und Kommission für Verantwortung in der Forschung“* des Senats der Universität Stuttgart
2021 - 2025	Studiendekan der Fakultät Luft- und Raumfahrttechnik und Geodäsie, Universität Stuttgart

2016 – 2017	Prodekan *„Forschung“* der Fakultät Architektur und Bauingenieurwesen, TU Dortmund
2012 – 2017	Mitglied im Senat, TU Dortmund Mitglied in der Strukturkommission des Senats, TU Dortmund Mitglied im Fakultätsrat, TU Dortmund Rektoratsbeauftragter für Berufungsverfahren, TU Dortmund
2006 – 2011	Kursdirektor des internationalen Masterprogramms *„Computational Mechanics“*, Universität Duisburg-Essen

Gutachterliche Tätigkeiten

Drittmittel	– DFG (Deutsche Forschungsgemeinschaft) – ERC (European Research Council) – DAAD (Deutscher Akademischer Austauschdienst) – AvH (Alexander von Humboldt-Stiftung) – FNS (Friedrich-Naumann-Stiftung) – FWO (Forschungsgeselschaft Flandern, Belgien) – ISF (Israel Science Foundation, Israel) – NCSTE (National Center for Science and Technology Evaluation, Kazakhstan)
Fachzeitschriften	Acta Mechanica, Applied Mathematics and Computation, Archive of Applied Mechanics, BioSystems, Biomechanics and Modeling in Mechanobiology, Chemical Engineering Communications, Chemical Engineering and Processing: Process Intensification, Computer Methods in Biomechanics and Biomedical Engineering, Continuum Mechanics and Thermodynamics, International Journal for Numerical Methods in Biomedical Engineering, IEEE Transactions on Biomedical Engineering, International Journal for Numerical and Analytical Methods in Geomechanics, International Journal of Heat and Mass Transfer, International Journal of Solids and Structures, Journal of Computational and Applied Mathematics, Journal of Polymers and the Environment, Journal of Theoretical Biology, Journal of the Mechanics and Physics of Solids, Journal of Visualized Experiments, Mechanics Research Communications, Metallurgical and Materials Transactions A, PLOS Computational Biology, Scientific Reports, Transactions on Biomedical Engineering, Transport in Porous Media

Industrie-Kooperationen

Porsche	– Lebensdauervorhersage von Abgaskühlern bezüglich thermischer Beanspruchung, Multifunktionale Werkstoffe, Datengetriebene Surrogatmodelle für den Vorentwurf

Daimler	– Datenintegrierte Modellierung plastischer Lokalisierung bei Polymerwerkstoffen
Daimler Truck	– Hochaufgelöste, mehrskalige Batteriesimulation – Modellierung plastischer Lokalisierung bei Thermoplasten
Mercedes-Benz	– Datenintegrierte Temperaturoptimierung bei HV Batterien
Mercedes-Benz/ BMW/DYNAmor	– Prozesse, Methoden und Modelle zur volldigitalen Produktentwicklung für nachhaltige Elektroantriebsarchitekturen
INTES	– Simulation von Schädigungsprozessen von Polymerwerkstoffen
DMT	– Simulation mikrobieller und geochemischer Reaktionsprozesse im Untergrund, speziell Grubenwässer
ThyssenKrupp Steel Europe	– Materialbeschreibung Stahl – Prozesssimulation der Stahlherstellung und Veredelung – Simulation in der Umformtechnik – Simulation einer Strangussanlage
Salzgitter AG	– Prozesssimulation der Stahlherstellung und Veredelung – Plastizität – Lebensdaueranalysen von Stahlhohlprofilen und Schweißnähten
AG Ruhr	– Deponiesimulation und Methanoxidation
Küttner	– Gutachtertätigkeiten im Anlagenbau

Wissenschaftliche Kooperationen

Ateshian, G. A.	Musculoskeletal Biomechanics Laboratory (MBL), Columbia University, USA
Barthold, F.-J.	Numerische Methoden und Informationsverarbeitung, TU Dortmund, Germany
Bender, B.	Lehrstuhl für Produktentwicklung, Ruhr-Universität Bochum, Germany
Dahmen, U.	Department of General, Visceral and Transplantation Surgery, University Hospital Jena, Germany
Dirsch, O.	Institute of Pathology, University Hospital Jena, Germany
Hengstler, J.	Leibniz Research Centre for Working Environment and Human Factors IfA, Dortmund, Germany
Holzapfel, G. A.	Institute of Biomechanics, Graz University of Technology, Austria
Holzhütter, H. G.	Institute of Biochemistry, University Medicine Charité Berlin, Germany
Ickstadt, K.	Department of Mathematical Statistics with Applications in Biometrics, TU Dortmund University, Germany
Pierce, D.	Departments of Mechanical Engineering/Biomedical Engineering/Mathematics, University of Connecticut, USA

Schröder, J.	Institute of Mechanics, University of Duisburg-Essen, Germany
Steinbach, I.	Interdisciplinary Centre for Advanced Materials Simulation (ICAMS), Ruhr-University Bochum, Germany
Widmann, R.	Department Urban Water- and Waste-Management, University of Duisburg-Essen, Germany

Forschungsinteressen

Methoden

- Homogenisierung (TPM, Biot)
- Mehrskalenbeschreibung (FE^2, MIEL)
- polymorphe Unschärfenmodellierung (PUQ)
- thermisch-hydraulisch-mechanisch-chemisch-biologisch gekoppelte Prozesse (THMCB)
- Mehrfeld-, Mehrphasen- und Mehrkomponentenprobleme
- nichtlineare Strukturmechanik
- Dynamik und Wellenausbreitung
- poröse Materialien

Anwendungsgebiete

- Umweltwissenschaften (Deponie, Antarktik)
- Bauwesen (Beton, Boden)
- Energiewandlungs- und Energiespeichersystemen (Batterie, Brennstoffzelle)
- Designentwicklung für multifunktionale Metamaterialien (Auxetik)
- Biomechanik (Leber, Wirbel, Knorpel, Tumor)

Werkzeuge

- Festigkeitslehre
- Kontinuumsmechanik und Thermodynamik
- Finite-Element-Methode und Materialtheorie
- numerische Lösungsverfahren
- Theorie poröser Medien (TPM)
- Maschinelles Lernen (ANN, PINN, Sep-PI-DeepONet)
- Modelordnungsreduktion (MOR, HMOR)

Sonstiges

Mitgliedschaften

- Gesellschaft für Angewandte Mathematik und Mechanik (GAMM)
- German Association for Computational Mechanics (gacm)
- Forschungsvereinigung Baustatik-Baupraxis e.V.
- Deutsche Gesellschaft für Biomechanik (DGfB)
- Deutscher Hochschulverband (DHV)
- GAMM-Fachausschuss: Biomechanik (bis 2015 und neu ab 2018)
- GAMM-Fachausschuss: Mehrfeldprobleme (bis 2011)

	- GAMM-Fachausschuss: Multiscale Material Modeling
	- Research Department Subsurface Modeling & Engineering, Ruhr-Universität Bochum
Auslandsaufenthalt	- 06/2009 – 09/2009 Columbia University, New York, Prof. Gerard A. Ateshian
Sprachkenntnisse	- Deutsch (Muttersprache)
	- Englisch verhandlungssicher in Wort und Schrift
Hobby	- Pilot für Gas- und Heißluftballone

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Schriftenverzeichnis

Schriftenverzeichnis

Tim Ricken

Begutachtete Veröffentlichungen, total 178, h-index 26, Zitate 2255 (google scholar 02/2026),

[178] Azhdari, M.; Rezazadeh, G.; Pathak, R.; Tautenhahn, H.-M.; Tautenhahn, F.; Ricken, T.; Seyedpour, S. M.:
A critical review of non-Fourier heat transfer theories with phase lag in bio-heating: Explaining the variations in reported phase lag coefficients. *International Journal of Thermal Sciences* **220**, pages 110376 DOI: 10.1016/j.ijthermalsci.2025.110376, 2026.

[177] Ricken, T.; Azhdari, M.; Rezazadeh, G.; Pathak, R.; Seyedpour, S. M.;:
Heat Transfer Modeling in Two-Dimensional Porous Composite Structure with Polymer Matrix and Metal Particles Using the Virtual Element Method Under Laser Heating., In: *Advances and Challenges in Computational Mechanics*; Graf, W.; Fleischhauer, R.; Storm, J.; Wollny, I. Eds.; Springer Nature, 403–417, DOI: 10.1007/978-3-031-93213-732, 2026.

[176] Brodbeck, M.; Grünfelder, N.; Bertrand, F.; Ricken, T.:
Equilibration–Based A Posteriori Error Estimates for Solid Mechanics. *Proceedings in Applied Mathematics and Mechanics (PAMM)* **25** 4, page e70045 DOI: 10.1002/pamm.70045, 2026.

[175] Pathak, R.; Seyedpour, S. .; Kutschan, B.; Thom, A.; Thoms, S.; Ricken, T.:
Computational modeling of sea ice freezing dynamics across scales. *International Journal of Mechanical Sciences* **309**, page 111010 DOI: 110.1016/j.ijmecsci.2025.111010, 2026.

[174] Azhdari, M.; Kamrava, M.; Rezazadeh, G.; Pathak, R.; Schulze-Späte, U.; Ricken, T.; Seyedpour, S. M.:
From mechanical models to clinical reality: A systematic review of finite element advances in dental implant design, biomechanics, and optimization. *Materials Today Communications* **50**, page 114314 DOI: 10.1016/j.mtcomm.2025.114314, 2026.

[173] Azhdari, M.; Rezazadeh, G.; Pathak, R.; Tautenhahn, H.-M.; Tautenhahn, F.; Ricken, T.; Seyedpour, S. M.:
Non-Fourier bioheat transfer modeling: An extensive critical review of state of the art, caveats, and future directions. *International Communications in Heat and Mass Transfer* **169**, S. 109509 DOI: 10.1016/j.icheatmasstransfer.2025.109509, 2025.

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Thrombosis Simulation Using a Triphasic Porous Medium Model: Application to Aortic Dissection. *Journal of Engineering Mechanics* **151** (9), Artikel 04025048, DOI: 10.1061/JENMDT.EMENG-8468, 2025.

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Finite elements of multiscale mixtures (FE2M) in three dimensions: theory, numerical implementation, and analyses.*Computational Mechanics* DOI: 10.1007/s00466-025-02669-3, 2025.

[170] Grünfelder, N.; Padhy, M.; Armiti-Juber, A.; Seyedpour, S. M.; Waschinsky, N.; Ricken, T.:
Reduced-order modeling of lattice structures through iterative beam fitting and static mesoscale projection.*Results in Engineering* **27**, S. 106529, DOI: 10.1016/j.rineng.2025.106529, 2025.

[169] Kutschan, B.; Thoms, S.; Thom, A.; Pathak, R.; Ricken, T.:
Phase boundary dynamics for ice nucleation and growth processes in fresh and sea water. *Physica D: Nonlinear Phenomena* **481**, S. 134855, DOI: 10.1016/j.physd.2025.134855, 2025.

[168] Egli, F. S.; Seyedpour, S. M.; Pachenari, .; Pierce, D. M.; Ricken, T.:
Computational modeling of articular cartilage: Mechanical experiments, sensitivity analyses, parameter identification. *Acta Biomaterialia* **204**, Pages 429-445, DOI: 10.1016/j.actbio.2025.07.043, 2025.

[167] Pathak, R.; Seyedpour, S. M.; Kutschan, B.; Thom, A.; Thoms, S.; Ricken, T.:
Simulating sea ice freezing using a continuum mechanical multi-phase and multi-component homogenization framework.*Cold Regions Science and Technology* **239**, S. 104591, DOI: 10.1016/j.coldregions.2025.104591, 2025.

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Experimental and numerical analysis of heat transfer in polymer composites with metallic inclusions using virtual element method. *Materials & Design* **255**, S. 114172, DOI: 10.1016/j.matdes.2025.114172, 2025.

[165] Ali Mirza, Z.; Azhdari, M.; Kolomenskiy, D.; Rezazadeh, G.; Ricken, T.; Pathak, R.; Tautenhahn, H.-M.; Tautenhahn, F.; Seyedpour, S. M.:
Enhancing laser therapy procedure through surface temperature control in multi-layered skin tissue. *Journal of Thermal Biology* **129**, S. 104106, DOI: 10.1016/j.jtherbio.2025.104106, 2025.

[164] Azhdari, M.; Rezazadeh, G.; Ricken, T.; Pathak, R.; Tautenhahn, H.-M.; Tautenhahn, F.; Seyedpour, S. M.:
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[162] Brodbeck, M.; Suditsch, M.; Seyedpour, S. M.; Ricken, T.:
Phase transition in porous materials: effects of material parameters and deformation regime on

mass conservativity. *Computational Mechanics* **75** (3), S. 1191-1212, DOI: 10.1007/s00466-024-02557-2, 2025.

[161] Pathak, R.; Seyedpour, S. M.; Kutschan, B.; Thoms, S.; Ricken, T.:
A coupled multiscale description of seasonal Physical-BioGeoChemical dynamics in Southern Ocean Marginal Ice Zone. *Environmental Modelling & Software* **185**, S. 106270, DOI:10.1016/j.envsoft.2024.106270, 2025.

[160] Mandl, L.; Goswami, S.; Lambers, L.; Ricken, T.:
Separable physics-informed DeepONet: Breaking the curse of dimensionality in physics-informed machine learning. *Computer Methods in Applied Mechanics and Engineering* **434**, S. 117586, DOI: 10.1016/j.cma.2024.117586, 2025.

[159] Arasteh-Khoshbin, O.; Seyedpour, S. M.; Mandl, L.; Lambers, L.; Ricken, T.:
Comparing durability and compressive strength predictions of hyperoptimized random forests and artificial neural networks on a small dataset of concrete containing nano SiO2 and RHA. *European Journal of Environmental and Civil Engineering* **29** (2), S. 331-350, DOI: 0.1080/19648189.2024.2393881, 2025.

[158] Armiti-Juber, A.; Ricken, T.:
A multigrid two-scale modeling approach for nonlinear multiphysical systems. *Computer Methods in Applied Mechanics and Engineering* **433**, S. 117523, DOI: 10.1016/j.cma.2024.117523, 2025.

[157] Suditsch, M.; Wagner, A.; Ricken, T.:
Onco*: An umbrella Python framework for modelling and simulation of oncological scenarios. *Journal of Computational Science* **85**, S. 102533, DOI:10.1016/j.jocs.2025.102533, 2025.

[156] Suditsch, M.; Wagner, A.; Ricken, T.:
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[155] Brodbeck, M.; Suditsch, M.; Seyedpour, S. M.; Ricken, T.:
Data for: Phase transition in porous materials - Effects of material parameters and deformation regime on mass conservativity. *Repository DaRUS*, DOI:10.18419/DARUS-4460, 2024.

[154] Brodbeck, M.; Egli, F. S.; Suditsch, M.; Seyedpour, S. M.; Ricken, T.:
On the influence of non-linearity within two-phase poro-elasticity: Numerical examples and counterexamples. *Examples and Counterexamples* **6**, S. 100167, DOI: 10.1016/j.exco.2024.100167, 2024.

[153] Maike, S.; Schröder, J.; Bluhm, J.; Ricken, T.:
A mesh-in-element method for the theory of porous media. *International Journal for Numerical Methods in Engineering*, Artikel e7565, DOI: 10.1002/nme.7565, 2024.

[152] Grünfelder, N.; Savall, B. P.; Seyedpour, S. M.; Waschinsky, N.; Ricken, T.:
Exploring the dependencies of Poisson's ratio in auxetic structures. *Proc Appl Math and Mech* **24** (3) ,Artikel e202400073, DOI: 10.1002/pamm.202400073, 2024.

[151] Azhdari, M.; Rezazadeh, G.; Lambers, L.; Ricken, T.; Tautenhahn, H.-M.; Tautenhahn, F.; Seyedpour, S. M.:
Refining thermal therapy: Temperature distribution modeling with distinct absorption in multi-layered skin tissue during infrared laser exposure. *International Communications in Heat and Mass Transfer* **157** , S. 107818, DOI: 10.1016/j.icheatmasstransfer.2024.107818, 2024.

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Modeling freezing and BioGeoChemical processes in Antarctic sea ice. *Proc Appl Math and Mech* **24** (2), Artikel e202400047, DOI: 10.1002/pamm.202400047, 2024.

[149] Trivedi, Z.; Wychowaniec, J. K.; Gehweiler, D.; Sprecher, C. M.; Boger, A.; Gueorguiev, B.; D'Este, M.; Ricken, T.; Röhrle, O.:
Rheological Analysis and Evaluation of Measurement Techniques for Curing Poly (Methyl Methacrylate) Bone Cement in Vertebroplasty, *ACS biomaterials science & engineering* **10** (7), 4575 – 4586, DOI: 10.1021/acsbiomaterials.4c00417, 2024.

[147] Soltani, K.; Seyedpour, S. M.; Ricken, T.; Rezazadeh, G.:
One-dimensional thermomechanical bio-heating analysis of viscoelastic tissue to laser radiation shapes, *International Journal of Heat and Mass Transfer* **218**, 124747, DOI: 10.1016/j.ijheatmasstransfer.2023.124747, 2024.

[146] Lambers, L.; Waschinsky, N.; Schleicher, J.; König, M.; Tautenhahn, H.-M.; Albadry, M.; Dahmen, U.; Ricken, T.
Quantifying fat zonation in liver lobules: an integrated multiscale in silico model combining disturbed microperfusion and fat metabolism via a continuum biomechanical bi-scale, tri-phasic approach, *Biomechanics and Modeling in Mechanobiology* **22**, pages 631-653, DOI: 10.1007/s10237-023-01797-0, 2024.

[145] Tautenhahn, H.-M.; Ricken, T.; Dahmen, U.; Mandl, L.; Bütow, L.; Gerhäusser, S.; Lambers, L.; Chen, X.; Lehmann, E.; Dirsch, O.; König, M.:
SimLivA-Modeling ischemia-reperfusion injury in the liver: A first step towards a clinical decision support tool, *GAMM-Mitteilungen*, e202370003, DOI: 10.1002/gamm.202370003, 2024.

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Experimental Analysis of Strain and Thermal Behaviour on 3D Printed Flexible Auxetic Structures, In: *Lectures Notes on Advanced Structured Materials 2*; Altenbach, H., Hitzler, L., Johlitz, M., Merkel, M., Öchsner, A., Eds.; Springer Nature, 85–102, DOI: 10.1007/978-3-031-49043-95, 2024.

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Affine transformations accelerate the training of physics-informed neural networks of a one-dimensional consolidation problem, *Scientific Reports* **13** (1), 15566, DOI: 10.1038/s41598-023-42141-x, 2023.

[142] Soltani, K.; Seyedpour, S. M.; Ricken, T.; Rezazadeh, G.:
Transient high-frequency spherical wave propagation in porous medium using fractional calculus technique, *Acta Mechanica*, DOI: 10.1007/s00707-023-03780-3, 2023.

[141] Arasteh-Khoshbin, O.; Seyedpour, S. M.; Brodbeck, M.; Lambers, L.; Ricken, T.:
On effects of freezing and thawing cycles of concrete containing nano-Formula: see text: experimental study of material properties and crack simulation, *Scientific Reports* **13** (1), 15566, DOI: 10.1038/s41598-023-48211-4, 2023.

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Non-local three phase lag bio thermal modeling of skin tissue and experimental evaluation, *International Communications in Heat and Mass Transfer* **149**, 107146, DOI: 10.1016/j.icheatmasstransfer.2023.107146, 2023.

[139] Seyedpour, S. M.; Lambers, L.; Rezazadeh, G.; Ricken, T.:
Mathematical modelling of the dynamic response of an implantable enhanced capacitive glaucoma pressure sensor, *Measurement: Sensors* **30**, 100936, DOI: 10.1016/j.measen.2023.100936, 2023.

[138] Azhdari, M.; Seyedpour, S. M.; Ricken, T.; Rezazadeh, G.:
On the thermo-vibrational response of multi-layer viscoelastic skin tissue to laser irradiation, *International Journal of Thermal Sciences* **187**, 108160, DOI: 10.1016/j.ijthermalsci.2023.108160, 2023.

[137] Seyedpour, S. M.; Thom, A.; Ricken, T.:
Simulation of Contaminant Transport through the Vadose Zone: A Continuum Mechanical Approach within the Framework of the Extended Theory of Porous Media (eTPM), *Water* **15** (2), 343, DOI: 10.3390/w15020343, 2023.

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Sea ice mechanics, *Computer Methods in Material Science* **23** (3), 5–54, DOI: 10.7494/cmms.2023.3.0816, 2023.

[135] Trivedi, Z.; Gehweiler, D.; Wychowaniec, J. K.; Ricken, T.; Gueorguiev, B.; Wagner, A.; Röhrle, O.:

A continuum mechanical porous media model for vertebroplasty: Numerical simulations and experimental validation, *Biomechanics and Modeling in Mechanobiology* **22** (4), 1253â€“1266, DOI: 10.1007/s10237-023-01715-4, 2023.

[134] Seyedpour, S.M.; Henning, C.; Kirmizakis, P.; Herbrandt, S.; Ickstadt, K.; Doherty, R.; Ricken, T.:
Uncertainty with Varying Subsurface Permeabilities Reduced Using Coupled Random Field and Extended Theory of Porous Media Contaminant Transport Models, *Water* **15**, 159, DOI: 10.3390/w15010159, 2023.

[133] Suditsch, M.; Ricken, T.; Wagner, A.:
Patient-specific simulation of brain tumour growth and regression, *Proceedings in Applied Mathematics and Mechanics* **23** (1), e202200213, DOI: 10.1002/pamm.202200213, 2023.

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Analysing the bone cement flow in the injection apparatus during vertebroplasty, *Proceedings in Applied Mathematics and Mechanics* **23** (1), e202200070, DOI: 10.1002/pamm.202200070, 2023.

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About the applicability of the theory of porous media for the modelling of non-isothermal material injection into porous structures, *Proceedings in Applied Mathematics and Mechanics* **23** (1), e202200295, DOI: 10.1002/pamm.202200295, 2023.

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Uncertainty with Varying Subsurface Permeabilities Reduced Using Coupled Random Field and Extended Theory of Porous Media Contaminant Transport Models, *Water* **15**, 159, DOI: 10.3390/w15010159, 2022.

[129] Arasteh-Khoshbin, O.; Seyedpour, S.M.; Ricken, T.:
The effect of Caspian Sea water on mechanical properties and durability of concrete containing rice husk ash, nano SiO_2, and nano Al_2O_3, *Scientific Reports* **12**, 20202, DOI: 10.1038/s41598-022-24304-4, 2022.

[128] Armiti-Juber, A.; Ricken, T.:
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