# Dr.-Ing. Arndt Wagner

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Born on October 10, 1980 in Waiblingen (Germany)



### Scientific Career

Since 2013	Permanent position as "Akademischer Rat" at the Institute of Applied Mechanics (Civil Engineering), University of Stuttgart, Stuttgart, Germany			
2014	PhD Graduation (DrIng.) at the Faculty of Civil and Environmental Engineering, University of Stuttgart, Stuttgart, Germany			
2006 - 2013	Teaching assistant and research associate at the Institute of Applied Mechanics (Civil Engineering), University of Stuttgart, Stuttgart, Germany			
2001 - 2006	Studies in Civil Engineering at the University of Stuttgart, Stuttgart, Germany			
Scholarships, A	Awards and Faculty Functions			
Since 2014	Member of the faculty council at the Faculty of Civil and Environmental			

- Since 2014 Member of the faculty council at the Faculty of Civil and Environmental Engineering (representative of "akademischer Mittelbau")
- Since 2014 Member of the "Prüfungs- und Zulassungsausschuss Bauingenieurwesen" at the Faculty of Civil and Environmental Engineering (representative of "akademischer Mittelbau")
- Since 2014 Member of the "Gemeinsame Studienkommission Bauingenieurwesen und Master Online Bauphysik" at the Faculty of Civil and Environmental Engineering (representative of "akademischer Mittelbau")
- 2006/2007 Award winner (first place) of the "Lehrpreis" (teaching award) of the student council of Environmental Engineering for outstanding teaching performance in "Technischer Mechanik I/II"
- 2006 Award winner of the "Nachwuchsförderpreises" (newcomer sponsorship) of Ernst & Sohn for the year's best diploma thesis

## Ten most important publications

\* Publications jointly together with UoA-researchers involved within this IRTG § Publications jointly together with USTUTT-researchers involved within this IRTG

## A) Published in publication outlets with scientific quality assurance and book publications:

1. Ehlers, W.; <u>Wagner, A.</u>: Multi-component modelling of human brain tissue: a contribution to the constitutive and computational description of deformation, flow and diffusion processes with application to the invasive drug-delivery problem.

Computer Methods in Biomechanics and Biomedical Engineering, 18(8), p. 861-879, 2013.

- Ehlers, W.; <u>Wagner, A.</u>: Constitutive and Computational Aspects in Tumor Therapies of Multiphasic Brain Tissue. Book chapter In Computer Models in Biomechanics (Eds. Holzapfel, Kuhl), Springer, p. 263-276, 2013.
- <sup>§</sup> Bleiler, C.; <u>Wagner, A.</u>; Stadelmann, V.; Windolf, M.; Köstler, H.; Boger, A.; Gueorguiev-Rüuegg, B.; Ehlers, W.; Röhrle O.: Multiphasic modelling of bonecement injection into vertebral cancellous bone. International Journal for Numerical Methods in Biomedical Engineering, 31(1), p. 37-57, 2014
- B) Other publications
  - 4. <u>Wagner, A.;</u> Ehlers, W.: Multiphasic modelling of human brain tissue for intracranial drug-infusion studies. Proceedings in Applied Mathematics and Mechanics 12, 107-110, 2012.
  - Ehlers, W.; <u>Wagner, A.</u>: Multiphasic Modelling of Human Brain Tissue with Application to Convection-Enhanced Delivery of Therapeutics. In W. Ehlers & B. Markert (eds.): Proceedings of the 3rd GAMM Seminar on Continuum Biomechanics. Report No. II-21, p. 17-38, 2012.
  - 6. <u>Wagner, A.</u>; Ehlers, W.: Computational modelling of drug infusion into the anisotropic white-matter tracts of the human brain. Proceedings in Applied Mathematics and Mechanics 11, p. 133-134, 2011.
  - 7. <u>Wagner, A.</u>; Ehlers, W.: Computational modelling of drug infusion into the anisotropic white-matter tracts of the human brain. Proceedings in Applied Mathematics and Mechanics 11, 133-134, 2011.
  - 8. <u>Wagner, A.</u>; Ehlers, W.: A Porous Media Model to Describe the Behaviour of Brain Tissue. Proceedings in Applied Mathematics and Mechanics 8, 2008.
- C) Patents

Supervised graduate students since graduation year 2011

No.	Last Name, First Name	Degree	Title of the dissertation	Duration of thesis

Most important research grants since 2011

No.	Research Project	Funding Period	Name(s) of the principal investigator(s)	Funding source and reference number