

Curriculum vitae

Prof. Dr. rer. nat. Christoph Hoeschen
Professor for Medical technical systems
Acting Director Institute of Medical technology
Otto-von-Guericke University Magdeburg

Personal Data:

Date of birth January 13th, 1971
Place of birth Braunschweig, Germany
Legal status married, 3 children
Nationality German

Scientific highlights and awards:

- Behnken- Berger- Preis 2006 – 1. award (dedicated september 2007)
- More than 100 publications in peer-reviewed journals
- 24 patents
- 3 books as editor, various book chapters
- many invited talks / presentations / papers / best paper awards
- cooperations with national and international groups
- Programm committee of „SPIE Medical Imaging“ 2005-2017, 2013 Co-chair of „Physics of Medical Imaging Conference“, 2014/2015 Chair of „Physics of Medical Imaging Conference“
- Co-chair 3rd Malmö workshop on Medical Imaging, 2009
- Session chair World Congress Medical Physics 2009 and 2012
- Reviewer for various national and international journals
- Associate Editor SPIE Journal of Medical Imaging
- Founding president of EURAMED platform (“European Alliance for medical radiation protection research”) 2016/17
- scientific coordinator of 2 large scale European research projects and 2 large scale German research consortia (including one “Lighthouse – project”)

Steps in career:

Since 09/2014 **Professor Medical Technical Systems**, Otto-von-Guericke University, Magdeburg, Germany
acting head of Institute of Medical Technology (since 2018)
vice dean for education (2016-2018)

07/2004 – 12/2016 Helmholtz Zentrum München – Deutsches Forschungszentrum für Gesundheit und Umwelt, Neuherberg
director of the research unit „Medical radiation physics and diagnostics 05/2010 - 12/2016

in addition **intermediate director of personal dosimeter service**
from 12/2011 until 07/2013

head of working group Medical physics, Institute for radiation protection
until 04/2010

since 01/2010 in addition: **Professor for Medical Physics and Imaging**
„National Research Nuclear University Moscow“,
department Obninsk

09/1999 – 06/2004 **Scientific researcher**, clinic for diagnostic radiology
Otto-von-Guericke University Magdeburg

07/1996 – 08/1999 **Scientific researcher**, laboratory for image analysis
Physikalisch-Technischen Bundesanstalt, Braunschweig

Phd:

07/2002 Promotion for Dr. rer. nat. (magna cum laude)

Topic of the dissertation:

„Das reale Strahlenbild von Röntgenaufnahmen des Thorax“,

The real intensity pattern of an X-ray image of the thorax,
supervisor: Prof. Dr. rer. nat. Stefan Müller and Prof. Dr. med.
Wilfried Döhring, Otto-von-Guericke university Magdeburg

Education :

09/1990 – 05/1996 **Studying Physics**, Georg-August-Universität, Göttingen
Diploma in Physics (Mai 1996)

Topic of the thesis:

„Breitbandige Ultraschallspektroskopie an Mischungen aus tertiärem Amylalkohol, Wasser und 1:1-wertigen Salzen“

Broadbanded ultrasound spectroscopy on mixtures from Amyl-
alcohol, water and salt (grade „very good“)

parallel: studies of modern and medieval history (1991 –1993)

07/1977 – 05/1990 Schools in Braunschweig, Abitur (Wilhelm-Gymnasium)

Scholarship:

01/1992 – 05/1996 Scholarship of the Friedrich-Ebert-Stiftung

Magdeburg, 13.12.2021



5 most important peer-reviewed papers related to the topic

- 1.) Seibold P, Auvinen A, Auerbeck D, Bourguignon M, Hartikainen JM, Hoeschen C, Laurent O, Noël G, Sabatier L, Salomaa S, Blettner M: Clinical and epidemiological observations on individual radiation sensitivity and susceptibility (2020) *International Journal of Radiation Biology*, 96 (3), pp. 324-339. DOI:10.1080/09553002.2019.1665209 ACCESS TYPE: Open Access
- 2.) Grüner F, Blumendorf F, Schmutzler O, Staufer T, Bradbury M, Wiesner U, Rosentreter T, Loers G, Lutz D, Richter B, Fischer M, Schulz F, Steiner S, Warmer M, Burkhardt A, Meents A, Kupinski M, Hoeschen C: Localising functionalised gold-nanoparticles in murine spinal cords by X-ray fluorescence imaging and background-reduction through spatial filtering for human-sized objects. *Scientific Reports* Volume 8, Issue 1, Article number 16561 (2018).
- 3.) Spielmann V, Li WB, Zankl M, Oeh U, Hoeschen C: Uncertainty quantification in internal dose calculations for seven selected radiopharmaceuticals. *J. Nucl. Med.* 57, 122-128 (2016)
- 4.) Barrett HH, Myers KJ, Hoeschen C, Kupinski MA, Little MP: Task-based measures of image quality and their relation to radiation dose and patient risk. *Physics in Medicine and Biology* 60 (2) pp. R1-R75 (2015).
- 5.) Müller B H, Hoeschen C, Grüner F, Arkadiev V A, Johnson T R C: Molecular imaging based on X-ray fluorescent high-Z tracers. **Featured article:** *Phys. Med. Biol.* **58** 8063 - 8076 (2013).