

Publications

Journal and Conference Articles (Selection)

Journal Articles

A Novel Method of Outcome Assessment in Breast Reconstruction Surgery: Comparison of Autologous and Alloplastic Techniques Using Three-Dimensional Surface Imaging

Hartmann, Robin, Maximilian Weiherer, Daniel Schiltz, Stephan Seitz, Luisa Lotter, Alexandra Anker, Christoph Palm, Lukas Prantl, and Vanessa Brebant

Aesthetic Plastic Surgery. 2020

Optically tracked and 3D printed haptic phantom hand for surgical training system

Maier, Johannes, Maximilian Weiherer, Michaela Huber, and Christoph Palm

Quantitative Imaging in Medicine and Surgery 10.2, pp. 340–355. 2020

Assisting Barrett's esophagus identification using endoscopic data augmentation based on Generative Adversarial Networks

Souza, Luis Antonio de, Leandro A. Passos, Robert Mendel, Alanna Ebigbo, Andreas Probst, Helmut Messmann, Christoph Palm, and João Paulo Papa

Computers in Biology and Medicine 126. 2020

Real-time use of artificial intelligence in the evaluation of cancer in Barrett's oesophagus

Ebigbo, Alanna, Robert Mendel, Andreas Probst, Johannes Manzeneder, Friederike Prinz, Luis A. de Souza, João P. Papa, Christoph Palm, and Helmut Messmann

Gut, online first. *BMJ Publishing Group*, 2019

Computer-aided diagnosis using deep learning in the evaluation of early oesophageal adenocarcinoma

Ebigbo, Alanna, Robert Mendel, Andreas Probst, Johannes Manzeneder, Luis A. de Souza, João P. Papa, Christoph Palm, and Helmut Messmann

Gut 68, pp. 1143–1145. *BMJ Publishing Group*, 2019

A technical review of artificial intelligence as applied to gastrointestinal endoscopy: clarifying the terminology

Ebigbo, Alanna, Christoph Palm, Andreas Probst, Robert Mendel, Johannes Manzeneder, Friederike Prinz, Luis A de Souza, João P Papa, Peter Siersema, and Helmut Messmann

Endoscopy International Open 7.12, E1616–E1623. *Georg Thieme Verlag*, 2019

Imitating human soft tissue on basis of a dual-material 3D print using a support-filled metamaterial to provide bimanual haptic for a hand surgery training system

Maier, Johannes, Michaela Huber, Maximilian Weiherer, and Christoph Palm

Quantitative Imaging in Medicine and Surgery 9.1, pp. 30–42. *AME Publishing Company*, 2019

Force-feedback assisted and virtual fixtures based K-wire drilling simulation

Maier, Johannes, Jerome Perret, Michaela Huber, Martina Simon, Stephanie Schmitt-Rüth, Thomas Wittenberg, and Christoph Palm

Computers in Biology and Medicine 114, p. 103473. *Elsevier*, 2019

Barrett's esophagus analysis using infinity Restricted Boltzmann Machines

Passos, Leandro A., Luis A. de Souza, Robert Mendel, Alanna Ebigbo, Andreas Probst, Helmut Messmann, Christoph Palm, and João P. Papa

Neural Computing and Applications 54, pp. 475–485. *SpringerNature*, 2019

Learning visual representations with optimum-path forest and its applications to Barrett's esophagus and adenocarcinoma diagnosis

Souza, Luis A. de, Luis C.S. Afonso, Alanna Ebigbo, Andreas Probst, Helmut Messmann, Robert Mendel, Christian Hook, Christoph Palm, and João P. Papa

Neural Computing and Applications, pp. 1–17. *SpringerNature*, 2019

A Deep Learning Algorithm for Prediction of Age-Related Eye Disease Study Severity Scale for Age-Related Macular Degeneration from Color Fundus Photography

Graßmann, Felix, Judith Mengelkamp, Caronine Brandl, Sebastian Harsch, Martina E. Zimmermann, Birgit Linkohr, Annette Peters, Iris M. Heid, Christoph Palm, and Bernhard H.F. Weber

Ophthalmology 125.9, pp. 1410–1420. *Elsevier*, 2018

A survey on Barrett's esophagus analysis using machine learning

Souza, Luis A. de, Christoph Palm, Robert Mendel, Christian Hook, Alanna Ebigbo, Andreas Probst, Helmut Messmann, Silke Weber, and Joao P. Papa
Computers in Biology and Medicine 96, pp. 203–213. Elsevier, 2018

Current standards and new concepts in MRI and PET response assessment of antiangiogenic therapies in high-grade glioma patients

Hutterer, Markus, Elke Hattingen, Christoph Palm, Martin Andreas Proescholdt, and Peter Hau
Neuro-oncology 17.6, pp. 784–800. Oxford University Press, 2015

IMAGENA: image generation and analysis—an interactive software tool handling LA-ICP-MS data

Osterholt, Tobias, Dagmar Salber, Andreas Matusch, J Sabine Becker, and Christoph Palm
International Journal of Mass Spectrometry 307.1, pp. 232–239. Elsevier, 2011

Bioimaging of metals by laser ablation inductively coupled plasma mass spectrometry (LA-ICP-MS)

Becker, J Sabine, Miroslav Zoriy, Andreas Matusch, Bei Wu, Dagmar Salber, Christoph Palm, and J Susanne Becker
Mass spectrometry reviews 29.1, pp. 156–175. Wiley, 2010

Towards ultra-high resolution fibre tract mapping of the human brain—registration of polarised light images and reorientation of fibre vectors

Palm, Christoph, Markus Axer, David Gräbel, Jürgen Dammers, Johannes Lindemeyer, Karl Zilles, Uwe Pietrzyk, and Katrin Amunts
Frontiers in human neuroscience 4.9. Frontiers, 2010

Evaluation of registration strategies for multi-modality images of rat brain slices

Palm, Christoph, Andrea Vieten, Dagmar Salber, and Uwe Pietrzyk
Physics in medicine and biology 54.10, pp. 3269–3289. IOP Publishing, 2009

Color texture classification by integrative co-occurrence matrices

Palm, Christoph
Pattern Recognition 37.5, pp. 965–976. Elsevier, 2004

Colour texture analysis for quantitative laryngoscopy

Ilgner, Justus FR, Christoph Palm, Andreas G Schütz, Klaus Spitzer, Martin Westhofen, and Thomas M Lehmann
Acta oto-laryngologica 123.6, pp. 730–734. Informa, 2003

Color line search for illuminant estimation in real-world scenes

Lehmann, Thomas M and Christoph Palm
Journal of the Optical Society of America (JOSA) A 18.11, pp. 2679–2691. Optical Society of America, 2001

Conference Articles (peer-reviewed, Selection)

Semi-supervised Segmentation Based on Error-Correcting Supervision

Mendel, Robert, Luis Antonio de Souza, David Rauber, João Paulo Papa, and Christoph Palm
Computer Vision - ECCV 2020, pp. 141–157, 2020

Retrospective Color Shading Correction for Endoscopic Images

Weiheler, Maximilien, Martin Zorn, Thomas Wittenberg, and Christoph Palm
Bildverarbeitung für die Medizin 2020, pp. 14–19, 2020

Force-Feedback-assisted Bone Drilling Simulation Based on CT Data

Maier, Johannes, Michaela Huber, Uwe Katzky, Jerome Perret, Thomas Wittenberg, and Christoph Palm
Bildverarbeitung für die Medizin 2018, pp. 291–296, 2018

Barrett's Esophagus Identification Using Color Co-occurrence Matrices

Souza, Luis J. de, Alanna Ebigbo, Andreas Probst, Helmut Messmann, Joao P. Papa, Robert Mendel, and Christoph Palm
Conference on Graphics, Patterns and Images (Sibgrapi), 2018

Barrett's Esophagus Analysis Using Convolutional Neural Networks

Mendel, Robert, Alanna Ebigbo, Andreas Probst, Helmut Messmann, and Christoph Palm
Bildverarbeitung für die Medizin 2017, pp. 80–85, 2017

Barrett's Esophagus Analysis Using SURF Features

Souza, Luis J. de, Christian Hook, Joao P. Papa, and Christoph Palm
Bildverarbeitung für die Medizin 2017, pp. 141–146, 2017

Interactive Computer-assisted Approach for Evaluation of Ultrastructural Cilia Abnormalities

Palm, Christoph, Heiko Siegmund, Matthias Semmelmann, Claudia Grafe, Matthias Evert, and Josef A. Schroeder
Proc. SPIE 9785, Medical Imaging 2016: Computer-Aided Diagnosis, 97853N, 2016

GraphMIC - Medizinische Bildverarbeitung in der Lehre

Szalo, Alexander Eduard, Alexander Zehner, and Christoph Palm

Bildverarbeitung für die Medizin 2015, pp. 395–400, 2015

Porting FSL-Fastv4 to GPGPUs - Data-Parallel MRI Brain Segmentation in Clinical Use

Weber, Joachim, Christian Doenitz, Alexander Brawanski, and Christoph Palm

Bildverarbeitung für die Medizin 2015, pp. 389–394, 2015

GraphMIC: Easy Prototyping of Medical Image Computing Applications

Zehner, Alexander, Alexander Eduard Szalo, and Christoph Palm

Interactive Medical Image Computing (IMIC) Workshop, MICCAI 2015, 2015