

List of Publications

To be Published

Bone in Ultrasound (BonUS): A Systematic Evaluation of Bone Segmentation Methods on a Multi-Institution Dataset

Prashant U. Pandey, Ilker Hacihaliloglu, Guillaume Dardenne, Benjamin Hohlmann, Peter Broessner, Keiran Barr, Tamas Ungi, Oliver Zettinig, Raphael Prevost, Theo van Walsum, Zian Fanti, Fernando A. Cosio, Wolfgang Wein, Klaus Radermacher, Eric Stindel3, Gabor Fichtinger, Pierre Guy, and Antony J. Hodgson

Journal of Medical Image Analysis

Ultrasound-based 3D Bone Modelling in Computer-Assisted Orthopedic Surgery - A Review and Future Challenges

Benjamin Hohlmann, Peter Brößner and Klaus Radermacher

Journal: Computer Assisted Surgery

Knee Bone Models from Ultrasound

Benjamin Hohlmann, Peter Brößner, Lovis Phlippen, Thorsten Rohde and Klaus Radermacher

Journal: IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control

Ultrasound-based Registration for the Computer-Assisted Navigated Percutaneous Scaphoid Fixation

Peter Brößner, Benjamin Hohlmann, Kristian Welle, Klaus Radermacher

Journal: IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control

2022

Investigation of Morphotypes of the Knee Using Cluster Analysis

B. Hohlmann, M. Asseln, J. Xu & K. Radermacher

Journal: The Knee

<https://doi.org/10.1016/j.knee.2022.03.006>

Potential for femoral size optimization for off-the-shelf implants: A CT derived implant database analysis

S. Grothues, B. Hohlmann, S.M. Zingde & K. Radermacher

Journal of Orthopaedic Research

<https://doi.org/10.1002/jor.25464>

Standardized Evaluation of Current Ultrasound Bone Segmentation Algorithms on Multiple Datasets

P. Pandey, B. Hohlmann, P. Brößner, I. Hacihaliloglu, K. Barr, T. Ungi, O. Zettinig, R. Prevost, G. Dardenne,

Z. Fantj, W. Wein, E. Stindel, F. Arambula Cosio, P. Guy, G. Fichtinger, K. Radermacher & A. Hodgson
Conference Proceedings: Computer-assisted Orthopedic Surgery
<https://doi.org/10.29007/q51n>

CNN based 2D vs. 3D Segmentation of Bone in Ultrasound Images

B. Hohlmann, P. Brößner & K. Radermacher

Conference Proceedings: Computer-assisted Orthopedic Surgery
<https://doi.org/10.29007/qh4x>

Transformer vs. CNN – A Comparison on Knee Segmentation in Ultrasound Images

P. Brößner, B. Hohlmann & K. Radermacher

Conference Proceedings: Computer-assisted Orthopedic Surgery
<https://doi.org/10.29007/cqcv>

2021

Segmentation of the Scaphoid Bone in Ultrasound Images: A comparison of two machine learning architectures for in-vivo segmentation

B. Hohlmann, P. Brößner, K. Welle & K. Radermacher

Conference Proceedings: Computer- und Roboterassistierte Chirurgie
<https://doi.org/10.1515/cdbme-2021-1017>

Validation of Automated Ultrasound-based Registration for Navigated Scaphoid Fixation: Evaluation of registration performance regarding simulated screw placement

P. Brößner, B. Hohlmann, K. Welle & K. Radermacher

Conference Proceedings: Computer- und Roboterassistierte Chirurgie
<https://doi.org/10.1515/cdbme-2021-1025>

Ultrasound-based Navigation of Scaphoid Fracture Surgery

P. Broessner, B. Hohlmann & K. Radermacher

Conference Proceedings: Bildverarbeitung für die Medizin
http://doi.org/10.1007/978-3-658-33198-6_8

2020

Augmented Active Shape Model Search – towards 3D Ultrasound-based Bone Surface Reconstruction

B. Hohlmann & K. Radermacher

Conference Proceedings: Computer-assisted Orthopedic Surgery
<https://doi.org/10.29007/3px6>

Segmentation of the distal femur in ultrasound images

B. Hohlmann, J. Glanz & K. Radermacher

Conference Proceedings: Computer- und Roboterassistierte Chirurgie
<https://doi.org/10.1515/cdbme-2020-0034>

2019

The interleaved partial active shape model (IPASM) search algorithm - towards 3D ultrasound-based bone surface reconstruction

B. Hohlmann & K. Radermacher

Conference Proceedings: Computer-assisted Orthopedic Surgery
<https://doi.org/10.29007/rbgl>

2017

The interleaved partial active shape model search (IPASM) algorithm – Preliminary results of a novel approach towards 3D ultrasound-based bone surface reconstruction

C. Hänisch, B. Hohlmann, K. Radermacher

Conference Proceedings: Computer-assisted Orthopedic Surgery
<https://doi.org/10.29007/ckw2>