

# List of Publications and Supervised Doctorates

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(February 15th, 2021)



## Reviewed Journal Papers

- 1) Wengefeld, T., Lewandowski, B., Seichter, D., Pfennig, L., Müller, St. Gross, H.-M. Real-time person orientation estimation and tracking using colored point clouds. *Robotics and Autonomous Systems (RAS)*, vol. 135 (2021) 1, pp. ...., Elsevier
- 2) Müller, St., Wengefeld, T., Trinh, T. Q., Aganian, D., Eisenbach, M. Gross, H.-M. A Multi-Modal Person Perception Framework for Socially Interactive Mobile Service Robots. *Sensors* vol. 20 (2020) 3, 722, 18 pages; <https://doi.org/10.3390/s20030722>
- 3) Gross, H.-M., Scheidig, A., Debes, K., Einhorn, E., Eisenbach, M., Müller, St., Schmiedel, Th., Trinh, T. Q., Weinrich, Ch., Wengefeld, T., Bley, A., Martin, Ch. ROREAS - Robot Coach for Walking and Orientation Training in Clinical Post-Stroke Rehabilitation: Prototype Implementation and Evaluation in Fields Trials. *Autonomous Robots (AR)*, vol. 41 (2017) 3, pp. 679-698, Springer
- 4) Doering, N., Richter, K., Gross, H.-M., Schroeter, Ch., Mueller, S., Volkhardt, M., Scheidig, A., Debes, K. Robotic Companions for Older People: A Case Study in the Wild. *Studies in Health Technology and Informatics* vol. 219 (2016), pp. 147-152
- 5) Doering, N., Poeschl, S., Gross, H.-M., Bley, A., Martin, Ch., Boehme, H.-J. User-Centered Design and Evaluation of a Mobile Shopping Robot. *Int. Journal of Social Robotics (JSR)*, vol. 7 (2015), pp. 203-225
- 6) Einhorn, E., Gross, H.-M. Generic NDT Mapping in Dynamic Environments and its Application for Lifelong SLAM. *Robotics and Autonomous Systems (RAS)*, vol. 69 (2015), pp. 28-39
- 7) Vollmer, Ch., Hellbach, S., Eggert, J., Gross, H.-M. Sparse Coding of Human Motion Trajectories with Non-Negative Matrix Factorization. *Neurocomputing (NC)* vol. 124 (2014), pp. 22-32
- 8) Kirstein, St., Wersing, H., Gross, H.-M., Körner, E. A Life-Long Learning Vector Quantization Approach for Interactive Learning of Multiple Categories. *Neural Networks (NN)* vol. 28 (2012), pp. 90-105
- 9) Einhorn, E., Schröter, Ch., Gross, H.-M. Attention-Driven Monocular Scene Reconstruction for Obstacle Detection, Robot Navigation and Map Building. *Robotics and Autonomous Systems (RAS)*, vol. 59 (2011) 5, pp. 296-309, Elsevier
- 10) Poeschl, S., Doering, N., Gross, H.-M., Bley, A., Martin, Ch., Boehme, H.-J. Roboter-Gestuetzte Artikelsuche im Baumarkt. *Zeitschrift fuer Evaluation (ZfEv)*, vol. 10 (2011) 1, pp. 99-132
- 11) Barrois, B., Konrad, M., Woehler, Ch., Gross, H.-M. Resolving Stereo Matching Errors due to Repetitive Structures Using Model Information. *Pattern Recognition Letters (PRL)*, vol. 31, Issue 12 (2010), pp. 1683-1692, Elsevier
- 12) Martin, Ch., Steege, F.-F., Gross, H.-M. Estimation of Pointing Poses for Visually Instructing Mobile Robots under Real World Conditions. *Robotics and Autonomous Systems (RAS)*, vol. 58 (2010) 2, pp. 174-185, Elsevier
- 13) Arras, K., Burgard, W., Gross, H.-M. Special Issue of Selected Papers from the 2007 European Conference on Mobile Robots. *Robotics and Autonomous Systems (RAS)*, vol. 58 (2010) 2, pp. 131-132, Elsevier
- 14) Hellbach, S., Eggert, J., Koerner, E., Gross,

- H.-M. Experimental Evaluation of Approaches for Long Term Prediction of Human Movement Trajectories. *Australian Journal of Intelligent Information Processing Systems (AJIIPS)*, vol. 10 (2009) 3
- 15) **Kirstein, St., Denecke, A., Hasler, St., Wersing, H., Gross, H.-M., Koerner, E.** A Vision Architecture for Unconstrained and Incremental Learning of Multiple Categories. in *Memetic Computing (MC)*, vol. 1 (2009), 4, pp. 291-304
  - 16) **Woehler, Chr., d'Angelo, P., Krueger, L., Kuhl, A., Gross, H.-M.** Monocular 3D Scene Reconstruction at Absolute Scale. *ISPRS Journal of Photogrammetry and Remote Sensing (ISPRS)*, vol. 64 (2009), 6, pp. 529-540, Elsevier 2009
  - 17) **Richarz, J., Scheidig, A., Martin, Ch., Mueller, St., Gross, H.-M.** A Monocular Pointing Pose Estimator for Gestural Instruction of a Mobile Robot *Int. Journal of Advanced Robotic Systems (IJARS)*, vol. 4, No. 1 (2007), pp. 139-150
  - 18) **Gross, H.-M.** Learning and Self-Organization of Behavior - Service. *Kuenstliche Intelligenz (KI)*, vol. 3 (2006), pp. 43-44, BoettcherIT Verlag, Bremen
  - 19) **Martin, Ch., Schaffernicht, E., Scheidig, A., Gross, H.-M.** Multi-Modal Sensor Fusion Using a Probabilistic Aggregation Scheme for People Detection and Tracking. *Robotics and Autonomous Systems (RAS)*, vol. 54 (2006) 9, pp. 721-728, Elsevier ScienceDirect
  - 20) **Scheidig, A., Mueller, St., Gross, H.-M.** User-Adaptive Interaction with Social Service Robots. *Kuenstliche Intelligenz (KI)*, vol. 3 (2006), pp. 31-34, BoettcherIT Verlag, Bremen
  - 21) **Wilhelm, T., Boehme, H.-J., Gross, H.-M.** A Multi-Modal System for Tracking and Analyzing Faces on a Mobile Robot. *Robotics and Autonomous Systems (RAS)*, vol. 48 (2004), pp. 31-40, Elsevier Science
  - 22) **Boehme, H.-J., Wilhelm, T., Key, J., Schauer, C., Schroeter, Chr., Gross, H.-M., Hempel, T.** An Approach to Multi-Modal Human-Machine Interaction for Intelligent Service Robots. *Robotics and Autonomous Systems (RAS)*, vol. 44 (2003), pp. 83-96, Elsevier Science
  - 23) **Stephan, V., Gross, H.-M.** Visuomotor Anticipation - A Powerful Approach to Behavior-Driven Perception. *Kuenstliche Intelligenz (KI)*, vol. 2 (2003), pp. 12-17
  - 24) **Stephan, V., Debes, K., Gross, H.-M., Wintrich, F., Wintrich, H.** A New Control Scheme for Combustion Processes Using Reinforcement Learning Based on Neural Networks. *Int. Journal on Computational Intelligence and Applications (IJCIA)*, vol. 1 (2001) 2, pp. 121-136, Imperial College Press 2001
  - 25) **Corradini, A., Boehme, H.-J., Gross, H.-M.** A Hybrid Stochastic-Connectionist Approach to Gesture Recognition. *Int. Journal on Artificial Intelligence Tools (IJAIT)*, vol.9 (2000), no. 2, pp. 177-204
  - 26) **Gross, H.-M., Boehme, H.-J., Key, J., Wilhelm, T.** The PERSES Project - A Vision-Based Interactive Mobile Shopping Assistant. *Kuenstliche Intelligenz (KI)*, vol. 4 (2000), pp. 34-36
  - 27) **Gross, H.-M., Heinze, A., Seiler, T., Stephan, V.** Generative Character of Perception: A Neural Architecture for Sensorimotor Anticipation. *Neural Networks, 1999 Special Issue "Organisation of Computation in Brain-like Systems" (NN)*, vol. 12 (1999), pp. 1101-1129
  - 28) **Thust, S., Pomierski, T., Schade, H.-P., Gross, H.-M.** Automatische Farbkorrektur fuer Film, Video und Photo. *Fernseh- und Kino-Technik (FKTG)*, vol. 51 (1997), no. 3, pp. 589-592 [A]
  - 29) **Hamker, F.-H., Gross, H.-M.** Region Finding for Attention Control in Consideration of Subgoals. *Neural Network World, International Journal on Neural and Mass-Parallel Computing and Information Systems (NNW)*, vol. 6 (1996), no. 3, pp. 305-313 [5, E]
  - 30) **Gross, H.-M., Boehme, H.-J., Debes, K.** A Neural Network Hierarchy for Data and Knowledge Controlled Selective Visual Attention. *Chinese Journal of Biomedical Engineering (CJBME)*, vol. 4 (1994) pp. 363-368
  - 31) **Schwind, J., Gross, H.-M.** Verfahren zur online-Minimierung von Lidschlag- und vertikalen Augenbewegungsartefakten im EEG. *EEG-EMG Zeitschrift fuer Elektroenzephalographie, Elektromyographie und verwandte Gebiete*, vol. 19 (1988), pp. 96-100

## Reviewed International Conference and Workshop Papers

- 1) **Schnuerer, Th., Probst, M., Gross, H.-M.** Relational Concepts in Deep Reinforcement Learning: Emergence and Representation. in: *Int. Workshop "Concepts in Action: Representation, Learning, and Application" (CARLA), Bolzano, Italy*, 3 pages, OpenReview.Net 2020
- 2) **Katzmann, A. Muehlberg, A., Suehling, M., Noerenberg, D., Holch, J. W., Gross, H.-M.** Deep Random Forests for Small Sample Size Prediction with Medical Imaging Data. in: *Int. Symposium on Biomedical Imaging (ISBI), Iowa City, USA*, pp.1543-47, IEEE 2020
- 3) **Lembach, J., Stricker, R., Gross, H.-M.** Efficient Implementation of Regional Mutual Information for the Registration of Road Images. in: *Int. Conf. on Image Processing Theory, Tools and Applications (IPTA), Paris, France*, 6 pages, IEEE 2020
- 4) **Lewandowski, B., Wengefeld, T. Mueller, S., Jenny, M., Glende, S., Schroeter, Ch., Bley,**

- A., Gross, H.-M.** Socially Compliant Human-Robot Interaction for Autonomous Scanning Tasks in Supermarket Environments. in: *IEEE Int. Symp. on Robot and Human Interactive Communication (RO-MAN), Naples, Italy*, pp. 363-370, IEEE 2020
- 5) **Seichter, D., Lewandowski, B., Hoechemer, D., Wengefeld, T., Gross, H.-M.** Multi-Task Deep Learning for Depth-based Person Perception in Mobile Robotics. in: *IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS), Las Vegas, USA*, pp. 10497-10504, IEEE 2020
  - 6) **Trinh, T. Q., Vorndran, A., Schuetz, B., Jaeschke, B., Mayfarth, A., Scheidig, A., Gross, H.-M.** Autonomous Mobile Gait Training Robot for Orthopedic Rehabilitation in a Clinical Environment. in: *Int. Symp. on Robot and Human Interactive Communication (RO-MAN), Naples, Italy*, pp. 580-587, IEEE 2020
  - 7) **Wengefeld, T., Hoechemer, D., Lewandowski, B., Koehler, M., Beer, M., Gross, H.-M.** A Laser Projection System for Robot Intention Communication and Human Robot Interaction. in: *Int. Symp. on Robot and Human Interactive Communication (RO-MAN), Naples, Italy*, pp. 259-265, IEEE 2020
  - 8) **Eisenbach, M., Stricker, R., Sesselmann, M., Seichter, D., Gross, H.-M.** Enhancing the Quality of Visual Road Condition Assessment by Deep Learning. in: *World Road Congress 2019, Abu Dhabi, UAE*, 13 pages, 2019
  - 9) **Gross, H.-M., Scheidig, A., Mueller, St., Schuetz, B., Fricke, Ch., Meyer, S.** Living with a Mobile Companion Robot in your Own Apartment - Final Implementation and Results of a 20-Weeks Field Study with 20 Seniors. in: *IEEE Int. Conf. on Robotics and Automation (ICRA), Montreal, Canada*, pp. 2253-2259, IEEE 2019
  - 10) **Katzmann, A. Muehlberg, A., Suehling, M., Noerenberg, D., Gross, H.-M.** Deep Metamemory - A Generic Framework for Stabilized One-Shot Confidence Estimation in Deep Neural Networks and its Application on Colorectal Cancer Liver Metastases Growth Prediction. in: *IEEE Int. Symposium on Biomedical Imaging (ISBI)*, pp. 1298-1302, IEEE 2019
  - 11) **Katzmann, A., Muehlberg, A., Suehling, M., Noerenberg, D., Maurus, St., Holch, J. W., Heinemann, V., Gross, H.-M.** Computed Tomography Image-Based Deep Survival Regression for Metastatic Colorectal Cancer Using a Non-proportional Hazards Model. in: *Predictive Intelligence in Medicine (PRIME), Shenzhen, China*, LNCS 11843, pp. 73-80, Springer 2019
  - 12) **Lewandowski, B., Liebner, J., Wengefeld, T., Mueller, St., Gross, H.-M.** A Fast and Robust 3D Person Detector and Posture Estimator for Mobile Robotic Applications. in: *IEEE Int. Conf. on Robotics and Automation (ICRA), Montreal, Canada*, pp. 4869-75, IEEE 2019
  - 13) **Lewandowski, B., Seichter, D., Wengefeld, T., Pfennig, L., Drumm, H., Gross, H.-M.** Deep Orientation: Fast and Robust Upper Body Orientation Estimation for Mobile Robotic Applications. in: *IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS), Macau*, pp. 441-48, IEEE 2019
  - 14) **Liebner, J., Scheidig, A., Gross, H.-M.** Now I Need Help! Passing Doors and Using Elevators as an Assistance Requiring Robot. in: *Int. Conf. on Social Robotics (ICSR), Madrid, Spain*, pp. 527-37, Springer 2019
  - 15) **Milz, St., Simon, M., Fischer, K., Poepperl, M., Gross, H.-M.** Points2Pix: 3D Point-Cloud to Image Translation Using Conditional GANs. in: *Pattern Recognition (DAGM GCPR), Dortmund, Germany*, LNCS vol. 11824, pp. 387-400, Springer 2019
  - 16) **Mueller, St., Seichter, D., Gross, H.-M.** Cross-Talk Compensation in Low-Cost Resistive Pressure Matrix Sensors. in: *IEEE Int. Conf. on Mechatronics (ICM), Ilmenau, Germany*, pp. 232-237, IEEE 2019
  - 17) **Scheidig, A., Jaeschke, B., Schuetz, B., Trinh, T. Q., Vorndran, A., Mayfarth, A., Gross, H.-M.** May I Keep an Eye on Your Training? Gait Assessment Assisted by a Mobile Robot. in: *IEEE/RAS-EMBS Int. Conf. on Rehabilitation Robotics (ICORR)*, pp. 701-708, IEEE 2019
  - 18) **Schnuerer, Th., Fuchs, St., Eisenbach, M., Gross, H.-M.** Real-Time 3D Pose Estimation from Single Depth Images. in: *Proc. Int. Joint Conf. on Computer Vision, Imaging and Computer Graphics - Theory and Applications (VISAPP), Prague, Czech Republic*, pp. 716-724, 2019
  - 19) **Saemann, T., Amende, K., Milz, St., Gross, H.-M.** Robust Semantic Video Segmentation through Confidence-based Feature Map Warping. in: *ACM Computer Science in Cars Symposium (CSCS), Kaiserslautern, Germany*, 9 pages, ACM 2019
  - 20) **Saemann, T., Amende, K., Milz, St., Gross, H.-M.** Leverage Temporal Consistency for Robust Semantic Video Segmentation. in: *ICML 2019 Workshop on Uncertainty and Robustness in Deep Learning, Long Beach, CA, USA*, 8 pages, 2019
  - 21) **Simon, M., Amende, K., Kraus, A., Honer, J., Saemann, T., Kaulbersch, H., Milz, St., Gross, H.-M.** Complexer YOLO: Real-Time 3D Object Detection and Tracking on Semantic Point Clouds. in: *CVPR-Workshop on Autonomous Driving, Long Beach, USA*, 10 pages, IEEE 2019
  - 22) **Stricker, R., Eisenbach, M., Sesselmann, M., Debes, K., Gross, H.-M.** Improving Visual Road Condition Assessment by Extensive Experiments on the Extended GAPs Dataset. in: *Int. Joint Conf. on Neural Networks (IJCNN), Budapest, Hungary*,

- paper N-20496, 8 pages, IEEE 2019
- 23) **van der Grinten, T., Mueller, St., Westhoven, M., Wischniewski, S., Scheidig, A., Gross, H.-M.** Designing an Expressive Head For a Help Requesting Socially Assistive Robot. in: *Human-Friendly Robotics (HFR)*, Springer Proc. in Advanced Robotics, vol 12. pp. 88-102, Springer 2019
  - 24) **Wengefeld, T., Mueller, St., Lewandowski, B., Gross, H.-M.** A Multi Modal People Tracker for Real Time Human Robot Interaction. in: *IEEE Int. Symp. on Robot and Human Interactive Communication (RO-MAN)*, New Delhi, India, 8 pages, IEEE 2019
  - 25) **Wengefeld, T., Lewandowski, B., Seichter, D., Pfennig, L., Gross, H.-M.** Real-time Person Orientation Estimation using Colored Pointclouds. in: *Europ. Conf. on Mobile Robotics (ECMR)*, Prague, Czech Republic, 7 pages, 2019
  - 26) **Backhaus, N., Rosen, P. H., Scheidig, A., Gross, H.-M., Wischniewski, S.** Somebody Help Me, Please?! Interaction Design Framework for Needy Mobile Service Robots. in: *IEEE Workshop on Advanced Robotics and its Social Impacts (ARSO)*, pp. 54-61 , IEEE 2018
  - 27) **Dahn, N., Fuchs, St., Gross, H.M.** Situation Awareness for Autonomous Agents. in: *IEEE Int. Symp. on Robot and Human Interactive Communication (RO-MAN)*, Nanjing, China, pp. 666-671 , IEEE 2018
  - 28) **Jaeschke, B., Vorndran, A., Trinh, T. Q., Scheidig, A., Gross, H.-M., Sander, K., Layher, F.** Making Gait Training Mobile - A Feasibility Analysis. in: *IEEE Int. Conf. on Biomedical Robotics and Biomechatronics (Biorob)*, Enschede, The Netherlands, pp. 484-490, IEEE 2018
  - 29) **Katzmann, A., Muehlberg, A., Suehling, M., Noerenberg, D., Holch, J. W., Gross, H.-M.** Tumor Encode - Deep Convolutional Autoencoder for Computed Tomography Tumor Treatment Assessment. in: *World Congress on Computational Intelligence / Int. Joint Conf. on Neural Networks (IJCNN)*, Rio de Janeiro, Brazil, pp. 3876-3883, IEEE 2018
  - 30) **Katzmann, A., Muehlberg, A., Suehling, M., Noerenberg, D., Holch, J.W., Heinemann, V., Gross, H.-M.** Predicting Lesion Growth and Patient Survival in Colorectal Cancer Patients using Deep Neural Networks. in: *Int. Conf. on Medical Imaging with Deep Learning (MIDL)*, Amsterdam, The Netherlands, 12 pages, openreview.net, 2018
  - 31) **Mueller, St., Gross, H.-M.** Making a Socially Assistive Robot Companion Touch Sensitive. in: *Int. Conf. on Haptics and Touch Enabled Computer Applications (Eurohaptics)*, Pisa, Italy, pp. 476-488, Springer 2018
  - 32) **Seichter, D., Eisenbach, M., Stricker, R., Gross, H.-M.** How to Improve Deep Learning based Pavement Distress Detection while Minimizing Human Effort. in: *IEEE Int. Conf. on Automation Science and Engineering (CASE)*, Munich, pp. 63-68, IEEE 2018
  - 33) **Trinh, T. Q., Wengefeld, T., Mueller, St., Vorndran, A., Volkhardt, M., Scheidig, A., Gross, H.-M.** "Take a seat, please": Approaching and Recognition of Seated Persons by a Mobile Robot. in: *Int. Symposium on Robotics (ISR)*, Munich, Germany, pp. 240-247, VDE Verlag 2018
  - 34) **Vorndran, A., Trinh, T. Q., Mueller, St., M., Scheidig, A., Gross, H.-M.** How to Always Keep an Eye on the User with a Mobile Robot? in: *Int. Symposium on Robotics (ISR)*, Munich, Germany, pp. 219-225, VDE Verlag 2018
  - 35) **Dittmar, C., Denzler, J., Gross, H.-M.** A Feedback Estimation Approach for Therapeutic Facial Training. in: *Int. Joint Conf. on Face and Gesture Recognition (FG)*, Washington D.C., USA , pp. 141-148, IEEE 2017
  - 36) **Eisenbach, M., Stricker, R., Seichter, D., Amende, K., Debes, K., Sesselmann, M., Ebersbach, D., Stoeckert, U., Gross, H.-M.** How to Get Pavement Distress Detection Ready for Deep Learning? A Systematic Approach. in: *Int. Joint Conf. on Neural Networks (IJCNN)*, Anchorage, USA, pp. 2039-2047, IEEE 2017
  - 37) **Eisenbach, M., Stricker, R., Seichter, D., Vorndran, A., Wengefeld, T., Gross, H.-M.** Speeding up Deep Neural Networks on the Jetson TX1. in: *Int. WS CAPRI at Joint Conf. on Neural Networks (IJCNN)*, Anchorage, USA, 12 pages, 2017
  - 38) **Gross, H.-M., Meyer, S., Scheidig, A., Eisenbach, M., Mueller, St., Trinh, T. Q., Wengefeld, Bley, A., Martin, Ch., Fricke, Ch.** Mobile Robot Companion for Walking Training of Stroke Patients in Clinical Post-stroke Rehabilitation. in: *IEEE Int. Conf. on Robotics and Automation (ICRA)*, Singapore, pp. 1028-1035, IEEE 2017  
Best Paper Award on Human-Robot Interaction (HRI) - Finalist
  - 39) **Lewandowski, B., Wengefeld, T., Schmiedel, Th., Gross, H.-M.** I See You Lying on the Ground - Can I Help You? Fast Fallen Person Detection in 3D with a Mobile Robot. in: *IEEE Int. Symp. on Robot and Human Interactive Communication (RO-MAN)*, Lisbon, Portugal, pp. 74-80, IEEE 2017
  - 40) **Mueller, St., Trinh, T. Q., Gross, H.-M.** Local Real-Time Motion Planning Using Evolutionary Optimization. in: *Towards Autonomous Robotic Systems (TAROS)*, UK, LNCS Vol. 10454, pp. 211-221, Springer 2017
  - 41) **Mueller, St., Trinh, T. Q., Gross, H.-M.** First Steps Towards Emotionally Expressive Motion Control For Wheeled Robots. in: *IEEE Int. Symp. on Robot and Human Interactive Communication (RO-MAN)*, Lisbon, Portugal, pp. 1351-56, IEEE 2017

- 42) **Schmiedel, Th., Gross, H.-M.** IRON-BAG: Fast Classification of Humans and Objects in 3D NDT-Maps using Structural Signatures. in: *IEEE Int. Symp. on Robot and Human Interactive Communication (RO-MAN)*, Lisbon, Portugal, pp. 1491-1497, IEEE 2017
- 43) **Eisenbach, M., Seichter, D., Wengefeld, T., Gross, H.-M.** Cooperative Multi-Scale Convolutional Neural Networks for Person Detection. in: *IEEE World Congress on Computational Intelligence (WCCI)*, Vancouver, Canada, pp. 267-276, IEEE 2016
- 44) **Gross, H.-M., Eisenbach, M., Scheidig, A., Trinh, T. Q., Wengefeld, T.** Contribution towards Evaluating the Practicability of Socially Assistive Robots - by Example of a Mobile Walking Coach Robot. in: *Int. Conf. on Social Robotics (ICSR)*, Kansas City, USA, LNAI 9979, pp. 890-99, Springer 2016
- 45) **Wengefeld, T., Eisenbach, M., Trinh, T. Q., Gross, H.-M.** May I be your Personal Coach? Bringing Together Person Tracking and Visual Re-identification on a Mobile Robot. in: *Int. Symposium on Robotics (ISR)*, Munich, Germany, pp. 141-148, VDE Verlag 2016
- 46) **Eisenbach, M., Kolarow, A., Vorndran, A., Niebling, J., Gross, H.-M.** Evaluation of Multi Feature Fusion at Score-Level for Appearance-based Person Re-Identification. in: *Proc. Int. Joint Conf. on Neural Networks (IJCNN)*, Killarney, Ireland, pp. 469-476, IEEE 2015
- 47) **Eisenbach, M., Vorndran, A., Sorge, S., Gross, H.-M.** User Recognition for Guiding and Following People with a Mobile Robot in a Clinical Environment. in: *IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS)*, Hamburg, Germany, pp. 3600-3607, IEEE 2015
- 48) **Gross, H.-M., Mueller, St., Schroeter, Ch., Volkhardt, M., Scheidig, A., Debes, K., Richter, K., Doering, N.** Robot Companion for Domestic Health Assistance: Implementation, Test and Case Study under Everyday Conditions in Private Apartments. in: *IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS)*, Hamburg, Germany, pp. 5992-5999, IEEE 2015
- 49) **Mueller, St., Schroeter, Ch., Gross, H.-M.** Smart Fur Tactile Sensor for a Socially Assistive Mobile Robot. in: *Proc. Int. Conf. on Intelligent Robotics and Applications (ICIRA)*, UK, Part. II, LNAI 9246, pp. 49-60, Springer 2015
- 50) **Schmiedel, Th., Einhorn, E., Gross, H.-M.** IRON: A Fast Interest Point Descriptor for Robust NDT-Map Matching and Its Application to Robot Localization. in: *IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS)*, Hamburg, Germany, pp. 3144-3151, IEEE 2015
- 51) **Stricker, R., Mueller, St., Gross, H.-M.** Universal Usage of a Video Projector on a Mobile Guide Robot. in: *Proc. Int. Conf. on Intelligent Robotics and Applications (ICIRA)*, UK, LNAI 9246, pp. 25-36, Springer 2015 - Best Paper Award - Finalist
- 52) **Stricker, R., Mueller, St., Gross, H.-M.** R2D2 Reloaded: Dynamic Video Projection on a Mobile Service Robot in: *Proc. Europ. Conf. on Mobile Robotics (ECMR)*, Lincoln, UK, 6 pages, 2015
- 53) **Trinh, T. Q., Schroeter, Ch., Gross, H.-M.** "Go ahead, please": Recognition and Resolution of Conflict Situations in Narrow Passages for Polite Mobile Robot Navigation. in: *Proc. Int. Conf. on Social Robotics (ICSR)*, Paris, France, pp. 643-653, Springer 2015
- 54) **Lanz, C., Denzler, J., Gross, H.-M.** Facial Movement Dysfunctions: Conceptual Design of a Therapy-Accompanying Training System. in: *Ambient Assisted Living, Advanced Technologies and Societal Change*, pp. 123-141, Springer 2014
- 55) **Gross, H.-M., Debes, K., Einhorn, E., Mueller, St., Scheidig, A., Weinrich, Ch., Bley, A., Martin, Ch.** Mobile Robotic Rehabilitation Assistant for Walking and Orientation Training of Stroke Patients: A Report on Work in Progress. in: *Proc. IEEE Int. Conf. on Systems, Man, and Cybernetics (SMC)*, San Diego, USA, pp. 1895-1902, IEEE 2014
- 56) **Klingelschmitt, St., Platho, M., Gross, H.-M., Willert, V., Eggert, J.** Combining Behavior and Situation Information for Reliably Estimating Multiple Intentions. in: *Proc. IEEE Intelligent Vehicles Symposium (IV)*, Dearborn, Michigan, USA, pp. 383-393, IEEE 2014
- 57) **Lanz, C., Olgay, B. S., Denzler, J., Gross, H.-M.** Facial Landmark Localization and Feature Extraction for Therapeutic Face Exercise Classification. in: *Computer Vision, Imaging and Computer Graphics - Theory and Applications: Revised Selected Papers of VISIGRAPP 2013*, Communications in Computer and Information Science (CCIS), vol. 458, pp. 179-194, Springer 2014
- 58) **Mueller, St., Sprenger, S., Gross, H.-M.** Online Adaptation of Dialog Strategies based on Probabilistic Planning. in: *Proc. IEEE Int. Symposium on Robot and Human Interactive Communication (RO-MAN)*, Edinburgh, UK, pp. 692-697, IEEE 2014
- 59) **Mueller, St., Sprenger, S., Gross, H.-M.** OfficeMate - a Study of an Online Learning Dialog System for Mobile Assistive Robots. in: *Proc. Int. Conf. on Adaptive and Self-Adaptive Systems and Applications (ADAPTIVE)*, Venice, Italy, pp. 104-110, 2014, Best Paper Award
- 60) **Stricker, R., Mueller, St., Gross, H.-M.** Non-contact Video-based Pulse Rate Measurement on a Mobile Service Robot in: *Proc. IEEE Int. Symposium on Robot and Human Interactive Communication (RO-MAN)*, Edinburgh, UK, pp. 1056-1062, IEEE

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- 61) **Weinrich, Ch., Wengefeld, T., Volkhardt, M., Scheidig, A., Gross, H.-M.** Generic Distance-Invariant Features for Detecting People with Walking Aid in 2D Range Data. in: *Proc. Int. Conf. on Intelligent Autonomous Systems (IAS), Padua, Italy*, 12 pages, 2014
  - 62) **Weinrich, Ch., Wengefeld, T., Schroeter, Ch., Gross, H.-M.** People Detection and Distinction of their Walking Aids in 2D Laser Range Data based on Generic Distance-Invariant Features. in: *Proc. IEEE Int. Symposium on Robot and Human Interactive Communication (RO-MAN), Edinburgh, UK*, pp. 767-773, IEEE 2014
  - 63) **Einhorn, E.; Gross, H.-M.** Generic 2D/3D SLAM with NDT Maps for Lifelong Application. in: *Proc. European Conf. on Mobile Robots (ECMR), Barcelona, Spain*, 8 pages
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- 2) **Erik Einhorn:** *Robuste vision-basierte Roboter-navigation in natürlichen Einsatzumgebungen*, Co-reviewer: Prof. Dr. Dillmann (Karlsruher Institut für Technologie), Prof. Dr. Zell (Universität Tübingen), TU Ilmenau 2018
- 3) **Michael Volkhardt:** *Ein Beitrag zur robusten Nutzerwahrnehmung auf realweltauftauglichen Assistenzrobotern in häuslichen Szenarien*, Co-reviewer: Prof. Dr. Leibe (RWTH Aachen), Prof. Dr. Rigoll (TU München), TU Ilmenau 2018
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