

Publikationen (peer reviewed) von Barbara Kühnlenz, geb. Gonsior

Internationale Fachzeitschriften

- [1] N. Spatola, B. Kühnlenz, and G. Cheng, “Perception and evaluation in human-robot interaction: The human-robot interaction evaluation scale (HRIES) – a multicomponent approach of anthropomorphism,” *Int. J. of Social Robotics*, pp. 1–23, 2021. <https://doi.org/10.1007/s12369-020-00667-4>.
- [2] K. Kühnlenz and B. Kühnlenz, “Motor interference of incongruent motions increases workload in close HRI,” *Advanced Robotics*, vol. 34, no. 6, pp. 400–406, 2020.
- [3] B. Kühnlenz and K. Kühnlenz, “A dialog switching strategy for information retrieval in noisy environments based on a confidence score,” *Advanced Robotics*, vol. 33, no. 1, pp. 49–59, 2019.
- [4] B. Kühnlenz, M. Erhart, M. Kainert, Z.-Q. Wang, J. Wilm, and K. Kühnlenz, “Impact of trajectory profiles on user stress in close human-robot interaction,” *at - Automatisierungstechnik*, vol. 66, no. 6, pp. 483–491, 2018.
- [5] N. Mirnig, E. Strasser, A. Weiss, B. Kühnlenz, D. Wollherr, and M. Tscheligi, “Can you read my face? – a methodological variation for assessing facial expressions of robotic heads,” *Int. J. of Social Robotics*, vol. 7, no. 1, pp. 63–76, 2015.
- [6] A. Weiss, N. Mirnig, U. Brucknerberger, E. Strasser, M. Tscheligi, B. Kühnlenz, D. Wollherr, and B. Stanczyk, “The interactive urban robot: User-centered development and final field trial of a direction requesting robot,” *Paladyn, Journal of Behavioral Robotics*, vol. 6, no. 1, 2015.
- [7] M. Buss, D. Carton, S. Khan, B. Kühnlenz, K. Kühnlenz, C. Landsiedel, R. de Nijs, A. Turnwald, and D. Wollherr, “IURO – Soziale Mensch-Roboter-Interaktion in den Straßen von München,” *at - Automatisierungstechnik*, vol. 63, no. 4, pp. 231–242, 2015.
- [8] B. Kühnlenz, S. Sosnowski, M. Buß, D. Wollherr, K. Kühnlenz, and M. Buss, “Increasing helpfulness towards a robot by emotional adaption to the user,” *International Journal of Social Robotics (IJSR)*, vol. 5, no. 4, pp. 457–476, 2013.
- [9] B. Gonsior, C. Landsiedel, N. Mirnig, S. Sosnowski, E. Strasser, J. Zlotowski, M. Buss, K. Kühnlenz, M. Tscheligi, A. Weiss, and D. Wollherr, “Impacts of multimodal feedback on efficiency of proactive information retrieval from task-related HRI,” *Journal of Advanced Computational Intelligence and Intelligent Informatics (JACIII), Special Issue on Cognitive Infocommunications*, vol. 16, no. 2, pp. 313–326, 2012.

Internationale Conference - Proceedings

- [1] K. Kühnlenz, U. Schmid, and B. Kühnlenz, “A video-based study on perceived intelligence, subjective performance and trust under variation of prior information given to users in autonomous driving,” in *2022 IEEE International Conference on Advanced Robotics and Its Social Impacts (ARSO)*, pp. 1–4, 2022.
- [2] K. Kühnlenz and B. Kühnlenz, “Towards the influence of human observer eye-movements on discriminating between perceived sociability of different robots,” in *ISR Europe 2022; 54th International Symposium on Robotics*, pp. 1–6, 2022.
- [3] K. Kühnlenz and B. Kühnlenz, “Visual perception of robot appearance attributes in the peripheral field of view depends on human observer eye-movement behaviors,” in *Proc. of the IEEE International Conference on Robotics and Automation (ICRA)*, 2022.
- [4] K. Kühnlenz, M. Westermann, and B. Kühnlenz, “Impact of human gaze behavior and robot appearance on motion uncertainty during cooperative hand movement tasks,” in *Proc. of the IEEE Int. Conf. on Robot and Human Interactive Communication (RO-MAN)*, 2020.
- [5] B. Kühnlenz and K. Kühnlenz, “Social bonding increases unsolicited helpfulness towards a bullied robot,” in *Proc. of the IEEE Int. Conf. on Robot and Human Interactive Communication (RO-MAN)*, 2020.
- [6] K. Kühnlenz, S. Hermann, K. Kalb, L. Marschollek, and B. Kühnlenz, “Progression of human hand trajectory variabilities during a pick- and-place task,” in *Proc. of the 16th International Conference on Informatics in Control, Automation and Robotics (ICINCO)*, 2019.
- [7] B. Kühnlenz, F. Busse, P. Förtsch, M. Wolf, and K. Kühnlenz, “Effect of explicit emotional adaptation on prosocial behavior of humans towards robots depends on prior robot experience,” in *Proc. of the IEEE Int. Conf. on Robot and Human Interactive Communication (RO-MAN)*, 2018.
- [8] B. Kühnlenz and K. Kühnlenz, “Impact of continuous eye contact of a humanoid robot on user experience and interactions with professional user background,” in *Proc. of the IEEE Int. Conf. on Robot and Human Interactive Communication (RO-MAN)*, 2017.
- [9] J. Schmölz, B. Kühnlenz, and K. Kühnlenz, “First experiences towards potential impact of an outdoor shopping assistant,” in *Proc. of the 17th Towards Autonomous Robotic Systems (TAROS)*, 2016.
- [10] B. Kühnlenz and K. Kühnlenz, “Reduction of heart rate by robot trajectory profiles in cooperative HRI,” in *Proc. of the International Symposium of Robotics (ISR)*, 2016.
- [11] B. Gonsior, M. Buß, S. Sosnowski, D. Wollherr, K. Kühnlenz, and M. Buss, “Towards transferability of theories on prosocial behavior from social psychology to HRI,”

- in *Proc. of the IEEE Int. Workshop on Advanced Robotics and its Social Impacts (ARSO)*, (Munich), pp. 101–103, 2012.
- [12] B. Gonsior, S. Sosnowski, M. Buß, D. Wollherr, and K. Kühnlenz, “An emotional adaption approach to increase helpfulness towards a robot,” in *Proc. of the IEEE Int. Conf. on Intelligent Robots and Systems (IROS)*, pp. 2429–2436, 2012.
- [13] N. Mirnig, B. Gonsior, S. Sosnowski, C. Landsiedel, D. Wollherr, A. Weiss, and M. Tscheligi, “Feedback guidelines for multimodal human-robot interaction: How should a robot give feedback when asking for directions?,” in *Proceedings of the IEEE International Symposium on Robot and Human Interactive Communication (Ro-Man)*, pp. 533–538, 2012.
- [14] B. Gonsior, S. Sosnowski, C. Mayer, J. Blume, B. Radig, D. Wollherr, and K. Kühnlenz, “Improving aspects of empathy and subjective performance for HRI through mirroring facial expressions,” in *Proc. of IEEE Int. Symp. on Robot and Human Interactive Communication (RO-MAN)*, (Atlanta, GA, USA), pp. 350–356, 2011.
- [15] B. Gonsior, C. Landsiedel, A. Glaser, D. Wollherr, and M. Buss, “Dialog strategies for handling miscommunication in task-related HRI,” in *Proc. of IEEE Int. Symp. on Robot and Human Interactive Communication (Ro-Man)*, (Atlanta, GA, USA), pp. 369–375, 2011.
- [16] M. Buss, D. Carton, B. Gonsior, K. Kühnlenz, C. Landsiedel, N. Mitsou, R. de Nijs, J. Zlotowski, S. Sosnowski, E. Strasser, M. Tscheligi, A. Weiss, and D. Wollherr, “Towards proactive human-robot interaction in human environments,” in *Proc. of the Int. Conf. on Cognitive Infocommunications (CogInfoCom)*, 2011.
- [17] R. de Nijs, M. Julia, N. Mitsou, B. Gonsior, D. Wollherr, K. Kühnlenz, and M. Buss, “Following route graphs in urban environments,” in *IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN)*, 2011.
- [18] N. Mirnig, B. Gonsior, D. Wollherr, A. Weiss, and M. Tscheligi, “Feedback in human-robot interaction: How to display a robot’s internal system status,” in *Proceedings of the 3rd International Conference on Social Robotics (ICSR)*, 2011.
- [19] B. Gonsior, D. Wollherr, and M. Buss, “Towards a dialog strategy for handling miscommunication in human-robot dialog,” in *Proc. of IEEE Int. Symp. on Robot and Human Interactive Communication (Ro-Man)*, (Viareggio, Italy), pp. 284–289, 2010.
- [20] A. Bauer, B. Gonsior, D. Wollherr, and M. Buss, “Heuristic rules for human-robot interaction based on principles from linguistics - asking for directions,” in *Proc. of AISB Convention - Int. Symp. on New Frontiers in Human-Robot Interaction (Best student poster award)*, pp. 24–30, 2009.

Bücher und Buchkapitel

- [1] B. Kühnlenz, *ZukunftsDesign*, ch. Wirtschaftspsychologie und technologische Innovation. 2021.
- [2] B. Kühnlenz and K. Kühnlenz, *Industrie 4.0*, vol. 6, ch. Gesundheitsförderung in kooperativer Mensch-Roboter Interaktion durch den Einsatz von menschenähnlichen Bewegungsprofilen bei Industrierobotern, pp. 81–90. Cuvillier, 2016.
- [3] B. Kühnlenz, *Alignment Strategies for Information Retrieval in Prosocial Human-Robot Interaction*. PhD thesis, Department of Electrical Engineering and Information Technology, 2013.

Vorträge

- Mai 2022 Konferenzvortrag zum Position Paper: K. Kühnlenz, U. Schmid, and B. Kühnlenz, "A Video-based Study on Perceived Intelligence, Subjective Performance and Trust under Variation of Prior Information given to Users in Autonomous Driving," IEEE Int. Conf. on Advanced Robotics and its Social Impacts (ARSO), Long Beach, CA, USA, 2022 (virtuell).
- Feb. 2020 "Chancen durch Mensch-Technik Kollaboration 4.0" (eingeladen), IHK-Gremium Kronach.
- Jan. 2020 "Chancen durch Mensch-Technik Kollaboration 4.0" (eingeladen), Unternehmerfrühstück des Innovationszentrums Region Kronach e.V. (IZK), Bastion Marie, Kronach.
- Feb. 2019 "Robots as socio-cognitive persuasive agents", ICS, CNE, HRC, TU München.
- Dez. 2018 "Soziale Robotik - eine interdisziplinäre Herausforderung" (eingeladen), Seminar Philosophie für Betriebswirtschaft, Hochschule Coburg.
- Nov. 2018 "Soziale Robotik - eine interdisziplinäre Herausforderung" (eingeladen von KUKA), Zentralevent der European Robotics Week (ERW), Augsburg.
- Mai 2012 "Towards Transferability of Theories on Prosocial Behavior from Social Psychology to HRI", IEEE International Workshop on Advanced Robotics and its Social Impacts (ARSO), München.
- Okt. 2012 "An Emotional Adaption Approach to increase Helpfulness towards a Robot", IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Vilamoura, Portugal.
- Aug. 2011 "Improving Aspects of Empathy and Subjective Performance for HRI through Mirroring Facial Expressions", IEEE International Conference on Robot and Human Interactive Communication (RO-MAN), Atlanta, USA.
- Aug. 2011 "Dialog Strategies for Handling Miscommunication in Task-Related HRI", IEEE International Conference on Robot and Human Interactive Communication (RO-MAN), Atlanta, USA.
- Sept. 2010 "Towards a Dialog Strategy for Handling Miscommunication in Human-Robot Dialog", IEEE International Conference on Robot and Human Interactive Communication (RO-MAN), Viareggio, Italien.

Posterpräsentationen

- Sept. 2020 "Social Bonding Increases Unsolicited Helpfulness Towards A Bullied Robot", IEEE International Conference on Robot and Human Interactive Communication (RO-MAN), Neapel, Italien (virtuell).
- Nov. 2009 "Heuristic rules for human-robotinteraction based on principles from linguistics - asking for directions", AISB Convention - Int. Symposium on New Frontiers in Human-Robot Interaction, Edinburgh, Schottland.