

Publikationen

Monographien

- **Filz, M. A.** (2023). Data-driven quality management in multi-stage manufacturing systems (Schriftenreihe des IWF). Vulkan Verlag.
- Gellrich, S., **Filz, M. A.**, Wölper, J., Herrmann, C., & Thiede, S. (2019). Data mining applications in manufacturing of lightweight structures. In Technologies for economical and functional lightweight design: Conference proceedings 2018 (pp. 15-27). Springer Berlin Heidelberg. (Buchkapitel)

Peer-reviewed Journalartikel

- **Filz, M. A.**, Bosse, J. P., & Herrmann, C. (2024). Digitalization Platform for data-driven Quality Management in multi-stage Manufacturing Systems. Journal of Intelligent Manufacturing.
- **Filz, M. A.**, Langner, J. E. B., Herrmann, C., & Thiede, S. (2021). Data-driven failure mode and effect analysis (FMEA) to enhance maintenance planning. Computers in Industry, 129, 103451.
- **Filz, M. A.**, Gellrich, S., Turetskyy, A., Wessel, J., Herrmann, C., & Thiede, S. (2020). Virtual quality gates in manufacturing systems: Framework, implementation and potential. Journal of Manufacturing and Materials Processing, 4(4), 106.
- **Filz, M. A.**, Herrmann, C., & Thiede, S. (2020). Simulation-based Data Analysis to Support the Planning of Flexible Manufacturing Systems. Simulation Notes Europe, 30(4), 131-137.

Konferenzbeiträge und Proceedings (nur peer-reviewed)

- **Filz, M. A.**, Thiede, S. (2024). Generative AI in Manufacturing Systems: Reference Framework and Use Cases. Procedia CIRP. (im Veröffentlichungsprozess)
- Martin, N., Thiede, B., Juraschek, M., **Filz, M. A.**, & Herrmann, C. (2022). Changeable Production Systems for Learning Factories and Research-based Learning. Available at SSRN 4072428.
- **Filz, M. A.**, Bosse, J. P., & Herrmann, C. (2021). Systematic Planning of Quality Inspection Strategies in Manufacturing Systems. Procedia CIRP, 104, 1101-1106.
- Gellrich, S., **Filz, M. A.**, Wilde, A. S., Beganovic, T., Mattheus, A., Abraham, T., & Herrmann, C. (2021). Deep transfer learning for improved product quality prediction: a case study of aluminum gravity die casting. Procedia CIRP, 104, 912-917.
- **Filz, M. A.**, Gellrich, S., Lang, F., Zietsch, J., Abraham, T., & Herrmann, C. (2021). Data-driven analysis of product property propagation to support process-integrated quality management in manufacturing systems. Procedia CIRP, 104, 900-905.
- **Filz, M. A.**, Herrmann, C., & Thiede, S. (2020). Simulation-based assessment of quality inspection strategies on manufacturing systems. Procedia CIRP, 93, 777-782.
- **Filz, M. A.**, Gellrich, S., Herrmann, C., & Thiede, S. (2020). Data-driven analysis of product state propagation in manufacturing systems using visual analytics and machine learning. Procedia CIRP, 93, 449-454.
- Flick, D., Gellrich, S., **Filz, M. A.**, Ji, L., Thiede, S., & Herrmann, C. (2019, July). Conceptual Framework for manufacturing data preprocessing of diverse input sources. In 2019 IEEE 17th International Conference on Industrial Informatics (INDIN) (Vol. 1, pp. 1041-1046). IEEE.
- Thiede, S., **Filz, M. A.**, Thiede, B., Martin, N. L., Zietsch, J., & Herrmann, C. (2019). Integrative simulation of information flows in manufacturing systems. Procedia CIRP, 81, 647-652.
- **Filz, M. A.**, Gerberding, J., Herrmann, C., & Thiede, S. (2019). Analyzing different material supply strategies in matrix-structured manufacturing systems. Procedia CIRP, 81, 1004-1009.
- Labbus, I., Teiwes, H., **Filz, M. A.**, Herrmann, C., Gonter, M., Rössinger, M., & Thiede, S. (2019). Automated statistical evaluation of energy data in the automotive production. Procedia CIRP, 81, 1154-1159.
- Bogner, N., **Filz, M. A.**, Herrmann, C., & Thiede, S. (2018). Assessment of changeability in battery cell production systems. Procedia CIRP, 72, 695-700.