

Publications

As of February 2026, my **h-index is ca. 165**. The following list contains **only my most important publications**. For a **full list** of my publications, see Google Scholar:
<https://scholar.google.com/citations?user=ZgO3g3QAAAAJ>.

Artificial Intelligence and Deep Learning

Journal publications, conference papers, proceedings, others

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- [2] P. Denzel, M. Weiss, E. Gavagnin, and F.-P. Schilling, "Optimization of deep learning models for radio galaxy classification," arXiv preprint 2601.04773, 2026. [Online]. Available: <https://arxiv.org/abs/2601.04773>
- [3] P. Denzel, Y. Billeter, F.-P. Schilling, and E. Gavagnin, "Galactic Alchemy: Deep Learning Map-to-Map Translation in Hydrodynamical Simulations," arXiv preprint 2510.23768, 2025. [Online]. Available: <https://arxiv.org/abs/2510.23768>
- [4] C. Frischknecht-Gruber, P. Denzel, O. Forster, Y. Billeter, A. Iranfar, M. Repetto, M. Reif, F.-P. Schilling, J. Weng, and R. Chavarriaga, "Assessment tool for trustworthy AI systems: operational workflows for compliance assessment with regulatory requirements," in *AI Days @ HES-SO, Geneva and Lausanne, Switzerland*, 2025. [Online]. Available: <https://digitalcollection.zhaw.ch/handle/11475/32422>
- [5] C. Frischknecht-Gruber, P. Denzel, M. Reif, Y. Billeter, S. Brunner, O. Forster, F.-P. Schilling, J. Weng, and R. Chavarriaga, "AI Assessment in Practice: Implementing a Certification Scheme for AI Trustworthiness," in *Symposium on Scaling AI Assessments (SAIA 2024)*, R. Görge, E. Haedecke, M. Poretschkin, and A. Schmitz, Eds., vol. 126. Dagstuhl, Germany: Schloss Dagstuhl – Leibniz-Zentrum für Informatik, 2025, pp. 15:1–15:18. doi:10.4230/OASIcs.SAIA.2024.15
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- [8] Y. Billeter, S. Brunner, R. Chavarriaga, P. Denzel, O. Forster, C. M.-L. Frischknecht-Gruber, M. Reif, F.-P. Schilling, J. Weng, A. Iranfar, and M. Repetto, "Certification Scheme For Artificial Intelligence Based Systems," in *ESREL 2024: Advances in Reliability, Safety and Security*, K. Kolowrocki and E. Dabrowska, Eds., 2024. doi:10.21256/zhaw-30549. ISBN 978-83-68136-03-6
- [9] M. Amirian, D. Barco, I. Herzig, and F.-P. Schilling, "Artifact Reduction in 3D and 4D Cone-beam Computed Tomography Images with Deep Learning - A Review," *IEEE Access*, vol. 12, pp. 10281–10295, 2024. doi:10.1109/ACCESS.2024.3353195. arXiv:2403.18565
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- [11] P. Denzel, F.-P. Schilling, and E. Gavagnin, "Map-to-map translation for SKA mock observations and cosmological simulations," in *Hammers and Nails 2023 - Swiss Edition, Ascona, Switzerland, October 2023*, 2023. doi:10.21256/zhaw-29047

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Particle Physics

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