

Publikationen

1. Abbaszadeh, S. et al.: A design concept and kinematic model for a soft aquatic robot with complex bio-mimicking motion; *Journal of Bionic Engineering*, 19, 16-28, (2022), DOI: 10.1007/s42235-021-00126-4
2. Pauwels, I. et al.: Archimedes Screw-An Alternative for Safe Migration Through Turbines? *Novel Developments for Hydropower*, DOI: > 10.1007/978-3-030-99138-8_11 (2022)
3. Powalla, D. et al.: A numerical approach for active fish behaviour modelling with a view toward hydropower plant assessment, *Renewable Energy*, DOI: > 0.1016/j.renene.2022.02.064, (2022)
4. Khan, A. H. et al.: An open 3D CFD model for the investigation of flow environments experienced by freshwater fish; *Journal of Ecological Informatics*, DOI: > 10.1016/j.ecoinf.2022.101652 (2022)
5. Cleynen, O. et al.: An efficient method for computing the power potential of bypass hydropower installations, *Energies*, DOI: > 10.3390/en15093228 (2022)
6. Helbig, U. et al.: The meander-type fish pass: An alternative to the conventional vertical slot pass *River Research and Applications*, 1–13, (2021), DOI: 10.1002/rra.3827
7. Powalla, D. et al.: A computational fluid dynamics model für a water power plant as platform for etho- and ecohydraulics research, *Energies* 14, 639, 1-14, (2021), DOI: 10.3390/en14030639
8. Roth, M. S. et al.: Turbulent eddy identification of a meander and vertical slot fishways in numerical models applying the IPOS-framework. *Journal of Ecohydraulics*, (2021), DOI: 10.1080/24705357.2020.1869916
9. Müller, S. et al.: Numerical analysis of the compromise between power output and fish-friendliness in a vortex power plant. *Journal Ecohydraulics*, DOI: 10.1080/24705357.2018.1521709, (2019) 1-13.
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12. Müller, S. et al.: Numerical analysis of the compromise between power output and fish-friendliness in a vortex power plant. *Journal Ecohydraulics*, 1-13, (2019), DOI: 10.1080/24705357.2018.1521709
13. Abbaszadeh, S., Kiiski, Y., Leidhold, R. and Hoerner, S., On the influence of head motion on the swimming kinematics of robotic fish. *Bioinspir. Biomim.* 18, (2023) 056007/1-13.

Veröffentlichungen vor Beginn des Projekts

1. Foust, J.M., et al.: > Model Testing for Fish Passage: Evaluation of Ice Harbor Turbine Improvements, Proceedings of HydroVision International 2013, PennWell Corp, Tulsa, Okla., (2013)
2. Wagner, F. & Schmalz, W.: > A working guide for site specific evaluations of fish protection and bypass systems, Fish Passage, International conference on river connectivity best practices innovations, Groningen, Niederlande, (2015).
3. I. Kopecki, et al.: "Leitströmung an Fischaufstiegsanlagen: Bewertung und Optimierung über ethohydraulische Modellierung". Deutsch. In: *Wasserwirtschaft* 10/2016, S. 37-42, DOI: 10.1007/s35147-016-0152-3, (2016).
4. I. Kopecki, I. & M. Schneider: > Betriebliche und bauliche Maßnahmen zur Verringerung der Auswirkungen des Schwallbetriebs auf Fischlarven, *La Houille Blanche*, (2016)
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Konferenzen

1. Benigni, H. et al.: Numerical Simulation and Experimental Verification of Downstream Migration in a Bulb Turbine. In: *31st IAHR Symposium on Hydraulic Machinery and Systems*, Trondheim, Norway, (2022)
2. Evans, O., et al: Not just the pump; broader considerations for downstream migrating silver eels at a 'fish-friendly' pumping station. In: *Fish Passage 2022: International Conference on River Connectivity*, Richland, USA, (2022)
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5. Powalla, D., Hoerner, S. and Thévenin, D.: Numerical assessment of fish injury risk combining agent-based fish behavior with turbine blade-strike detection, *Fish Passage 2022: International Conference on River Connectivity*, Richland, USA, (2022)
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7. Roth, M. S. et al.: Ethohydraulic Laboratory Experiments on Fish Descent in Accelerated Flows, *39th IAHR World Congress*, Granada, Spain, (2022)
8. Weber, C. et al.: Experimental and numerical evaluation of a multi-degree of freedom biomimicking fish locomotion with micro fibre composite actuation for a flexible robot, *MECHCOMP7 – 7th International Conference on Mechanics of Composites*, Porto, Spain, (2021)
9. Powalla, D. et al.: Near body flow field measurements on a fish robot, *9th International Symposium on Environmental Hydraulics*, Seoul, Korea, (2021)
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