Research Group Intelligent Systems and Business Informatics (ISBI)
Department of Artificial Intelligence and Cybersecurity, University of Klagenfurt, Austria

The ISBI group's mission is to promote the scientific understanding of the mechanisms underlying intelligent behaviour and their embodiment in machines, as well as their potential to benefit society. The group believes that incorporating knowledge in software systems is key to tackling many problems currently assumed to be unsolvable by machines, and its current research focuses on advancing knowledge-based systems and artificial intelligence across various domains.

The group is headed by O.Univ.-Prof. Dipl.-Ing. Dr. Gerhard Friedrich, with scientific staff including Assoc. Prof. Dipl.-Ing. Dr. Konstantin Schekotihin, Assoc.-Prof. Dipl.-Ing. Dr. Erich Christian Teppan, Prof. Dipl.-Ing. Mag. Dr. Markus Zanker, Priv.-Doz. DDipl.-Ing. Dr. Patrick Rodler, BBakk., Francesco Zuccato, BSc. MSc., and Veronika Bianca Semmelrock, BSc. MSc.

List of research topics

- Knowledge representation and reasoning
- Knowledge acquisition and maintenance
- Heuristics in automated problem solving
- Model-based diagnosis
- Configuration, planning and scheduling
- Knowledge-based recommender systems

Selected publications

1. Semmelrock, V., Strizzolo, B., Zuccato, F., Friedrich, G., Rodler, P., & Schekotihin, K. (2026). *Learning to Solve and Optimize by Evolving Code*. To appear in Proceedings of the Thirty-Fifth International Joint Conference on Artificial Intelligence (IJCAI 2026). Preprint: https://arxiv.org/abs/2605.31049