

Herke van Hoof

## Reinforcement learning for real-world network infrastructure

Abstract: Most current reinforcement learning research is done in the context of games and other simulated domains. However, leveraging the impressive results from these domains to make real-world impact requires tackling additional challenges. These challenges include handling structured state- and action spaces, providing safe, robust and scalable solutions even from modest datasets, and explicitly considering how a RL agent will interact with human collaborators. The AI4REALNET project focuses on such challenges in the context of sequential decision making in real-world critical infrastructure, such as power grids, train scheduling, and air traffic management. In this talk, I will discuss how the AI4REALNET project approaches these issues, and technical advances in these areas by our team.