



# Seminar



**UNIVERSITÀ  
DI TRENTO**  
Dipartimento di  
Ingegneria Industriale

## Info

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## Making robots learn to perceive and act with understanding

October 14th, h. 09:00 am

Seminar Room, Polo Ferrari 2, Via Sommarive 9, Trento

### Speaker

Prof. Justus Piater, University of Innsbruck

The title of the talk is the motto of the Intelligent and Interactive Systems group at the University of Innsbruck. The long-term objective of the group is to improve abstraction, generalization, robustness, and ultimately explainability of robot perception and action. Motivated by shortcomings of current machine-learning methods, Prof. Piater will discuss examples of the group's recent work on learning visual relational concepts, extrapolation of learned movements beyond the training distribution, and learning of symbolic concepts and rules from sensorimotor experience. As an added bonus, Prof. Piater will show how to train neural networks of many hundreds of layers without skip connections, batch normalization, dropout, or any other architectural tweaks, using the so-called batch-entropy regularization.

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