# ARTIFICIAL INTELLIGENCE

## PNRR - Learning skills for compliant robots

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| **Funded By** | MINISTERO DELL'UNIVERSITA' E DELLA RICERCA [P.iva/CF:97429780584]<br>Politecnico di TORINO [P.iva/CF:00518460019] |
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| **Context of the research activity** | Learning complex motor skills for non-rigid robots.<br>Progetto finanziato nell'ambito del PNRR.<br>PNRR M4C2, Investimento 1.3 - Avviso n. 341 del 15/03/2022 - PE0000013 Future Artificial Intelligence Research (FAIR) - CUP E13C22001800001 |
| **Objectives** | Learning complex motor skills for non-rigid robots is challenging because their highly non-linear dynamics prevent accurate closed-form mathematical modeling and a reliable simulation. Although Reinforcement Learning may represent a viable tool for learning control policies for soft bodies, it is still unclear how to bridge the gap between simplified simulators and real time-varying devices. |
| **Skills and competencies for the development of the activity** | Extensive knowledge of Python.<br>Knowledge of Pytorch framework and of OpenAI gym.<br>English fluency.<br>Experience in preparing and revising research plans, understand and disseminate research works, writing scientific papers.<br>Experience with reinforcement learning for non-rigid robots. |