Classification of top 30 Interactive Robot Learning Research Papers

1. most important one .

- Chetouani, "Interactive Robot Learning: An Overview" (2023) -13

2. Learning from Demonstration (LfD) / Imitation Learning

- Ambhore, "A Comprehensive Study on Robot Learning from Demonstration" (2020) -2
- Liang et al., "A Robot Learning from Demonstration Method Based on Neural Network and Teleoperation" (2024) - 5
- Argall et al., "A survey of robot learning from demonstration" (2009) -6
- Hussein et al., "Imitation Learning: A Survey of Learning Methods" (2018) - 11
- Hua et al., "Learning for a Robot: Deep Reinforcement Learning, Imitation Learning, Transfer Learning" (2021) -19
- Billard & Siegwart, "Robot learning from demonstration" (2004) -24
- Hu et al., "Robot Learning From Demonstration for Assembly With Sequential Assembly Movement Primitives" (2024) -25

3. Interactive Teaching Methods & Human-Robot Interaction

- Neto et al., "Gesture-based human-robot interaction for human assistance in manufacturing" (2019) -7
- Velentza et al., "Human-robot interaction methodology: Robot teaching activity" (2022) -9
- Thomaz et al., "Interactive robot task learning" (2010) -16
- Hindemith et al., "Interactive Robot Task Learning: Human Teaching Proficiency With Different Feedback Approaches" (2023) -17
- Rybski et al., "Interactive robot task training through dialog and demonstration" (2007) -18
- Chernova & Veloso, "Multi-thresholded approach to demonstration selection for interactive robot learning" (2008) -22
- Heckmann et al., "Teaching a humanoid robot: Headset-free speech interaction for audio-visual association learning" (2009) -27
- She et al., "Teaching Robots New Actions through Natural Language Instructions" (2014) -28

4. Robot Learning Architectures & Frameworks

- Mirsky et al., "Human-Interactive Robot Learning (HIRL)" (2022)-8
- Angleraud et al., "Human-Robot Interactive Learning Architecture using Ontologies and Symbol Manipulation" (2018) -10

- Ogata et al., "Interactive learning in human-robot collaboration" (2003) -12
- Chetouani, "Interactive Robot Learning: An Overview" (2023) -13
- Senft et al., "Supervised autonomy for online learning in human-robot interaction" (2017) - 26
- Lutkebohle et al., "The curious robot - Structuring interactive robot learning" (2009) -29

5. Specialized Learning Tasks & Applications

- Lanillos & Cheng, "Adaptive Robot Body Learning and Estimation Through Predictive Coding" (2018) -3
- Zhao et al., "A Real 3D Embodied Dataset for Robotic Active Visual Learning" (2022) -4
- Ahmadzadeh et al., "Interactive robot learning of visuospatial skills" (2013) -14
- Kim et al., "Interactive Robot-Robot Reinforcement Learning for Object Balancing Task" (2024) -15
- Ikemoto et al., "Physical interaction learning: Behavior adaptation in cooperative human-robot tasks involving physical contact" (2009)-23
- Zhou et al., "Visual information abstraction for interactive robot learning" (2011) -30

6. Reinforcement Learning in Interactive Settings

- Kim et al., "Interactive Robot-Robot Reinforcement Learning for Object Balancing Task" (2024) -15
- Hua et al., "Learning for a Robot: Deep Reinforcement Learning, Imitation Learning, Transfer Learning" (2021) -19
- Lin et al., "A Review on Interactive Reinforcement Learning From Human Social Feedback" (2020) -20

7. Workshops & Broader Perspectives

- Mirsky et al., "2nd Workshop on Human-Interactive Robot Learning (HIRL)" (2023) -1
- Mirsky et al., "Human-Interactive Robot Learning (HIRL)" (2022) -8
- Chetouani, "Interactive Robot Learning: An Overview" (2023) -13