

## **Research Topic- Adaptive interactive HRI**

Prior work of researchers in our group has established a number of methods to adapt robot interactions to a human interaction. These utilised indicators such as movement Jerk, RMSE or movement deviation to quantify human interaction, and applied different techniques to maintain a criteria, e.g. minimise error or maximise gain.

The proposed topic reconsiders the adaptation more holistically, given the rise in the number of interactive technologies we use daily. It considers different methods for adaptive interaction, and their influences on the production and outcome of movement using robotic, motion tracking via Kinect and virtual reality visual outputs.

**Requirements:** Applicants should have a very strong first degree or (preferably) a Master's degree in Cybernetics, Computer Science, Biomechanics or other relevant area, and are expected to have strong interdisciplinary interests (e.g. in robotics, virtual reality, motion tracking). They are also expected to have very good programming skills and interest in robotics.

**Informal contact before application:** the PhDs will be conducted under Dr Farshid Amirabdollahian's supervision and candidates are invited to contact

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