

# Robot Self-Characterisation of Experience...

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Title:

Robot Self-Characterisation of Experience Using Trajectories in Sensory-Motor Phase Space

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Abstract:

We describe sensorimotor phase-plots constructed using information theoretical methods from raw sensor data as a way for a robotic agent to characterise its interactions and interaction history. Simple behaviours appear as localised regions in these plots consisting of convoluted paths and simple morphometrics, including fractal dimension, may be used to characterise them. The segmentation of the time-frame into appropriate regions that describe behaviour is achieved by looking for periods of relative stasis.