Postdoc position in robotics and AI at ISIR, UPMC, Paris, France

**Main topic:** Robot state representation learning for skill acquisition

**Duration:** Funding available for 18 months, starting 1st June 2017, or as soon as possible thereafter.

**Position profile**

The goal of this project is to investigate the ways through which a robot can autonomously build state representations of sensory data which support the learning of sensorimotor and cognitive skills.

Applicants should hold a PhD in AI or a related field, have a strong experience in machine learning (dimensionality reduction, deep learning, bayesian learning), good programming skills and an interest in robotics. A significant experience in robotics programming is a plus. Speaking or understanding French is not required.

**Context**

The position will be located in the Institute of Intelligent Systems and Robotics (ISIR, [http://www.isir.upmc.fr](http://www.isir.upmc.fr)), Paris, France. ISIR belongs to the UPMC-Sorbonne Universités which is among the top ranked French universities. ISIR is located in the center of Paris, thus at walking distance from the Seine river, from other academic institutions (Ecole Normale Supérieure, La Sorbonne, Collège de France, Muséum d'Histoire Naturelle, Université Paris Descartes, Hôpital la Pitié Salpêtrière), and from famous monuments (Notre Dame, Le Panthéon, le Théâtre du Châtelet, Institut du Monde Arabe).

This research is funded by the SMART Labex project ([http://www.smart-labex.fr/](http://www.smart-labex.fr/)) and linked to the ongoing DREAM european project ([http://www.robotsthatdream.eu/](http://www.robotsthatdream.eu/)), which is led by ISIR and focuses on the bootstrap of a developmental process allowing a robot to learn about its environment and the objects it contains. It also involves collaboration with LIP6 ([https://www.lip6.fr](https://www.lip6.fr) - also at UPMC), a leading French computer science lab. The position involves robotics experiments that will be done on Baxter and PR2 robots.

**Instructions**

To apply, please send a CV, a motivation letter and the contact details of 2 to 3 references to Stéphane Doncieux ([stephane.doncieux@upmc.fr](mailto:stephane.doncieux@upmc.fr)) and Alexandre Coninx ([alexandre.coninx@upmc.fr](mailto:alexandre.coninx@upmc.fr)) with [Postdoc application] in the subject of the mail.