

DRF: Thesis SL-DRF-20-0987

## RESEARCH FIELD

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Astrophysics / Corpuscular physics and outer space

## TITLE

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Cosmology - Clusters of galaxies - Artificial intelligence

## ABSTRACT

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Clusters of galaxies are the most massive entities in the universe. As such, they constitute powerful cosmological probes.

The XLL survey is the largest programme of the European satellite XMM (X-ray band). It has enabled the detection of several hundreds of galaxy clusters.

The goal of the PhD is to perform the cosmological analysis of the cluster sample by using artificial intelligence techniques : deep learning and convolutive neural networks.

## LOCATION

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Institut de recherche sur les lois fondamentales de l'univers

Direction d'Astrophysique

Laboratoire de Cosmologie et d'Evolution des Galaxies

Place: Saclay

Start date of the thesis: 01/10/2020

## CONTACT PERSON

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## UNIVERSITY / GRADUATE SCHOOL

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Paris-Saclay

Astronomie et Astrophysique d'Île de France

## FIND OUT MORE

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[http://irfu.cea.fr/dap/Phoce/Vie\\_des\\_labos/Ast/ast\\_groupe.php?id\\_groupe=972](http://irfu.cea.fr/dap/Phoce/Vie_des_labos/Ast/ast_groupe.php?id_groupe=972)

[Site du projet XXL http://irfu.cea.fr/xxl](http://irfu.cea.fr/xxl)

## THESIS SUPERVISOR

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