

**PhD thesis opportunities
at the Laboratoire Astroparticule et Cosmologie - Paris
Virgo group**

The detection of gravitational-waves is one of the main challenges of contemporary physics. GW are ripples in the space-time metric, predicted by Einstein's Theory of General Relativity and emitted by violent astrophysical phenomena such as coalescences of neutron stars or black holes.

Their detection will allow important tests of the General Relativity, but will also open a new window onto the Universe and provide a new tool for astrophysics and cosmology.

In order to detect the gravitational waves, an intense international effort is on-going through kilometric-scale interferometers, like the Virgo detector (www.virgo.infn.it).

The Laboratoire Astroparticule et Cosmologie (APC) is a new institute devoted to particle astrophysics and cosmology, located on the new campus of the University of Paris Diderot, within the city limits of Paris.

The APC-Virgo team is involved in the design and construction of the Advanced Virgo detector, in the search for astrophysical GW signals in the Virgo/LIGO data and in optics research for future generation gravitational-wave interferometers.

PhD thesis opportunities for the academic year 2011-2012 (to be started in October 2011) are available in the fields of interest of the group.

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Next deadline for candidatures is March 20th 2011