



detector seminar

SPEAKER: ARNAUD, N. (LAL (CNRS-IN2P3))
TITLE: **Second generation of gravitational wave interferometric detectors: the example of Advanced Virgo**
DATE: Fri 13/05/2016 11:00
PLACE: 222-R-001 - Filtration Plant

ABSTRACT

After a few years of upgrade, the two Advanced LIGO detectors started taking data in September 2015 and shortly after recorded the first directly-detected gravitational wave signal. Advanced Virgo will soon catch up by forming a network of ground-based interferometric detectors, aiming at opening a new window into the Universe.

In this talk, I will use the example of Advanced Virgo to describe the interferometric detection of gravitational waves, review the main achievements of the first generation detectors and explain why a global upgrade was required to actually detect gravitational waves. I will show which challenges are being tackled by Virgo and LIGO to achieve this goal.