



ID de Contribution: 1

Type: **Invited talk**

Searching for the stochastic gravitational-wave background with Advanced LIGO and Advanced Virgo

jeudi 1 juin 2017 14:35 (35 minutes)

Observations by Advanced LIGO and Advanced Virgo in the coming years will allow for important limits to be set on the strength of a stochastic gravitational-wave background; a detection may happen as well. Sources for the stochastic gravitational-wave background could be cosmologically or astrophysically produced. The implications of the recent observations of GW150914 and GW151226 indicate that a stochastic background produced from the superposition of binary black hole mergers throughout the history of the universe may be detectable by LIGO and Virgo in the coming years. Presented will be a summary of the current LIGO-Virgo search for such a stochastic background using data from the first observing run, and what implications those results will have on different models. The projected sensitivities of future observation runs with Advanced LIGO and Advanced Virgo will also be given. Finally, information on how the stochastic background searches by ground-based detectors and LISA can complement one another will be presented.

Auteur principal: Dr CHRISTENSEN, Nelson (Artemis)**Orateur:** Dr CHRISTENSEN, Nelson (Artemis)**Classification de Session:** Continuous Waves and Stochastic Signals