## Progress on Old and New Themes in cosmology (PONT) 2014



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## Supermassive black holes, gravitational waves and cosmology

Thursday 17 April 2014 15:00 (30 minutes)

Within this decade the detection of gravitational waves (GWs) may be a reality, opening a completely new window on the Universe. The low frequency window will be dominated by signals emitted by a cosmological population of massive black hole binaries (MBHBs). I will review several aspect of MBH physics, including their formation, evolution, interaction with their environment and gravitational wave (GW) emission. I will pay particular attention to the prospect of GW detection with pulsar timing arrays and/or future space based interferometers and on the astrophysical and cosmological information that such detection will carry.

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