THIBAULT DAMOUR, Institut des Hautes Etudes Scientifiques *Gravitational Waves and Binary Black Holes*

The recent discovery of several gravitational wave events by the two interferometers of the Laser Interferometer Gravitational-Wave Observatory (LIGO), and by the Virgo interferometer, has brought the first direct evidence for the existence of black holes, and has also been the first observation of gravitational waves in the wave-zone. The talk will review the theoretical developments on the motion and gravitational radiation of binary black holes that have been crucial in interpreting the LIGO-Virgo events as being emitted by the coalescence of two black holes.