



Press Release – 3 May 2016

**Permanent Professor Thibault Damour
is one of the Laureates of the Special Breakthrough Prize in
Fundamental Physics for detection of Gravitational Waves**

The Selection Committee of the Breakthrough Prize in Fundamental Physics today announced a Special Breakthrough Prize in Fundamental Physics recognizing scientists and engineers contributing to the momentous detection of gravitational waves – a detection announced on February 11, 2016.

Edward Witten, the chair of the Selection Committee, commented, *“This amazing achievement lets us observe for the first time some of the remarkable workings of Einstein’s theory. Theoretical ideas about black holes which were close to being science fiction when I was a student are now reality.”*

The laureates are the three founders of the Laser Interferometer Gravitational Wave Observatory (Ronald W. P. Drever, Caltech, Kip S. Thorne, Caltech, and Rainer Weiss, MIT). The contributors sharing the prize include 1005 authors of the paper describing the discovery of gravitational waves from the numerous institutions involved in LIGO and its sister experiment, the Virgo Collaboration. Also sharing the prize are seven scientists who made important contributions to the success of LIGO. Thibault Damour is listed among those later contributors.

In recent weeks, two international awards also recognized Professor Damour crucial contributions to contemporary physics. On 20 April 2016 he was elected Foreign Honorary Member to the American Academy of Arts and Sciences, and was also awarded the 2016 Lodewijk Woltjer Lecture for his *“outstanding career on theoretical implications of General Relativity and in particular on the prediction of the newly-observed gravitational wave signal of coalescing binary black holes”* on 12 April 2016 by the European Astronomical Society.

Thibault Damour is a theoretical physicist working on consequences of Einstein's theory of General Relativity, and its String Theory extensions. He has made lasting contributions on: the theory of black holes, the dynamics and relativistic timing of binary pulsars, the generation of gravitational waves, the motion and coalescence of black holes, as well as several aspects of early cosmology. He has introduced in 2000 (with several collaborators) a new method for describing the motion and gravitational radiation of coalescing binary black holes, which gave the first prediction of the gravitational wave signal observed by LIGO in September 2015. His work was crucially used for interpreting the observed signal and measuring the masses and spins of the two coalescing black holes.

Maxim Kontsevich, Permanent Professor of mathematics at IHES was one the five winners of the inaugural Breakthrough Prize in Mathematics in 2014, as well as one of the nine winners of the inaugural Breakthrough Prize in Fundamental Physics in 2012.

Institut des Hautes Études Scientifiques (IHES)

IHES is a private research center dedicated to mathematics, theoretical physics and related disciplines. The Institute has a small faculty of permanent professors, both mathematicians and physicists, and hosts some more than 200 visitors annually, who come from all over the world for research periods. Freedom of research, independence and interdisciplinarity are core IHES values.

The Breakthrough Prize

For the fifth year, the Breakthrough Prizes will recognize the world’s top scientists. Each prize is \$3 million and presented in the fields of Life Sciences (up to five per year), Fundamental Physics (up to one per year) and Mathematics (up to one per year). In addition, up to three New Horizons in Physics and up to three New Horizons in Mathematics Prizes are given out to junior researchers each year. Laureates attend a televised award ceremony designed to celebrate their achievements and inspire the next generation of scientists. As part of the ceremony schedule, they also engage in a program of lectures and discussions. The Breakthrough Prizes were founded by Sergey Brin and Anne Wojcicki, Jack Ma and Cathy Zhang, Mark Zuckerberg and Priscilla Chan, and Yuri and Julia Milner. Selection Committees composed of previous Breakthrough Prize laureates choose the winners.

INSTITUT DES HAUTES ÉTUDES SCIENTIFIQUES

Le Bois-Marie • 35, route de Chartres • F-91440 Bures-sur-Yvette, France

IHES Communication Team: T +33 | 60 92 66 72 M comdev@ihes.fr | www.ihes.fr