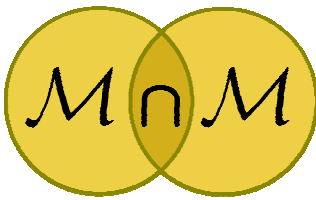


UNIVERSITÀ DEGLI STUDI DELL'AQUILA

M&MOCS



International Research Center on
MATHEMATICS AND MECHANICS
OF COMPLEX SYSTEMS

LAUDATIO THIBAUT DAMOUR

Thibault Damour is Permanent Professor at the Institut des Hautes Etudes Scientifique (Bures-sur-Yvette, France), a prestigious position which recognizes his deep and lasting contributions to the physics of black holes, binary pulsars, gravitational wave theory, cosmology, and string theory. He has accomplished this feat of research, exploring the very limits of general relativity and gravitational physics, with virtuoso style. In particular, he has created a whole mathematical physics framework, a sophisticated synergy between analytical and numerical relativity, representing a major tool in addressing the difficult problem of motion in general relativity and of its applications to the relativistic dynamics of compact objects. Not surprisingly, it is almost impossible to talk about observational results in general relativity, from the binary pulsar PSR 1913+16 to the revelation of gravitational waves, without realizing that at the center of this highly active research area there is the theoretical work of Thibault Damour. In his Nobel Lecture, Joseph Taylor amply recognizes the important contribution by Thibault in providing the interpretative framework that made PSR 1913+16 known as the *laboratory for general relativity*, providing a fundamental testing ground for the study of gravitation. More recently, the work by Thibault in collaboration with L. Blanchet and B. R. Iyer has led to the analytical description of the gravitational wave signal during the inspiral phase of compact binaries, a result which was used to extract physical parameters from the noisy raw data, hence contributing to the momentous experimental revelation of gravitational waves by the LIGO/Virgo team.

Over the course of his career, Thibault has received many honors. He is a Member of the French *Académie des Sciences (Section de Physique)*, of the *Institute de France*, of the *Academia Europaea*, a *Foreign Honorary Member of the American Academy of Arts and Sciences*. Among the numerous prizes he has received let us mention the *Einstein Medal* from the Albert Einstein Gesellschaft (Berne, Switzerland), the *Cecil F. Powell Memorial Medal* of the European Physical Society, the *Lodewijk Woltjer Lecture* of the European Astronomical Society, the *Amaldi Medal* of the Italian Society for General Relativity and Gravitational Physics, and more recently, the *Special Breakthrough Prize in Fundamental Physics* for the detection of gravitational waves.

In his work the density of elegant ideas is extraordinarily high, and they sustain an inspiring research which will continue to have an enormous impact on general relativity and gravitational physics.

The Scientific Committee of the *Levi-Civita Prize in Mechanical and Mathematical Sciences* is honored to propose Thibault Damour as recipient of the 2017 edition of the prize.