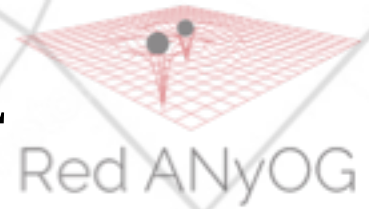


**THE MEXICAN DIVISION OF GRAVITATION AND MATHEMATICAL
PHYSICS AND THE
THEMATIC NETWORK OF BLACK HOLES AND GRAVITATIONAL
WAVES**



CERTIFIES THAT

SERGIO GRIJALVA CASTILLO

Participated with the talk “*Gravitational lensing by dark matter halos*”, in the *XII Mexican School of the Division of Gravitation and Mathematical Physics* and the *III School of General Relativity and Gravitational Waves*, that took place on 5-9 of November 2018 in Playa del Carmen, México.

Dr. Oscar Miguel Sabido Moreno

President

Division of Gravitation and Mathematical Physics

Dr. Claudia Moreno González

Responsable

Thematic Network of Black Holes and Gravitational Waves

