



Sociedad Mexicana de Física, A.C.

**The Division of Gravitation and Mathematical
Physics of the
Mexican Physics Society**

CERTIFIES THAT

Francisco S. Guzmán

Participated with the talk: “*Classifying the initial conditions of GRB out of the Light Curve*”, during the XI School of the Division, “*Quantum Gravity: schemes, models and phenomenology*”, that took place on 5-9 December 2016 in Playa del Carmen, Mexico.

On behalf of the organizing committee

Hector H. Hernandez Hernandez

President



**The Division of Gravitation and Mathematical
Physics of the
Mexican Physics Society**

CERTIFIES THAT

Francisco S. Guzmán

Participated with the talk: “*Estimation of the mass of black hole accreting a hydrodynamic fluid using artificial neural networks*”, during the XI School of the Division, “*Quantum Gravity: schemes, models and phenomenology*”, that took place on 5-9 December 2016 in Playa del Carmen, Mexico.

On behalf of the organizing committee

A handwritten signature in black ink, appearing to be 'Hector H. Hernandez Hernandez'.

Hector H. Hernandez Hernandez

President