

INSTITUTO DE ASTROFÍSICA DE ANDALUCÍA

TO WHOM IT MAY CONCERN

Dr. Francisco Javier Jiménez-Fernández has been working in the Solar System Department of the Instituto de Astrofísica de Andalucía (CSIC) in Granada (Spain) during the years 2007-2010. His work has been devoted to the study of cometary dust dynamics, by using Monte Carlo codes to compute the trajectory in space of the particles ejected from nucleus surfaces. He has been involved in the analysis of several targets, specifically comets 1P/Halley, 29P/Schwassmann-Wachmann, and 46P/Wirtanen. In two of those objects, he applied computer codes in order to track the trajectory of individual dust particles and boulders including comet's gravity and non-inertial forces, by solving numerically the equation of motion. This led to compute the density of large particles that might remain around cometary nuclei for some time, and that could potentially represent a hazard for space vehicles. This was made as a future application to Rosetta, a European Space Agency mission devoted to study comet 67P/Churyumov-Gerasimenko, expected to arrive to the comet in 2014. Dr. Jiménez-Fernández completed successfully his PhD in December 2010, at the University of

Granada (Spain), with a distinction "cum laude" by unanimity. The advisors were Antonio Molina Cuevas (University of Granada) and myself.

Dr. Fernando Moreno

Staff member of Solar System Department Instituto de Astrofísica de Andalucía, CSIC

Glorieta de la Astronomía, s/n

18008 Granada, Spain