



## **The wind field evolution at Tenerife Island during the Delta Tropical Storm**

L. Álvarez, L. Cana, D. Grisolia-Santos

Physics Department. ULPGC, 35017 - Las Palmas de GC, Spain

During 28 and 29 November 2005, the Delta tropical Storm moved close to the Canary Archipelago causing important damages. One of the most affected places was Tenerife Island, with wind gusts reaching up to 147 km/h at Tenerife North on 28 November, 21:30 UTC. We use Version 3.7 of the non-hydrostatic Penn State University/National Center of Atmospheric Research Mesoscale Model MM5 to reproduce a 36-h simulation of this event. Three different domains with 9 km, 3 km and 1 km horizontal grid spacing and 29 sigma vertical levels are defined. The simulation was performed using a one-way interactive nest between the coarse domain and the two smaller domains and a two-way interactive nest between the second and the third domain. The initial conditions were provided by the NCAR Dataset analysis from 27 November 2005, 12:00 UTC to 30 November 2005, 00:00 UTC, which were improved using surface and upper-air observations. The numerical simulation used Kain-Fritsch2 cumulus parameterization, Plein-Xiu PBL scheme and RRTM longwave radiation scheme.