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## **Driving from Chicago to Buenos Aires: instrumentation schools during a road trip across the Americas. (12' + 3')**

*Saturday, 6 August 2016 16:30 (15 minutes)*

The Escaramujo Project ([www.escaramujo.net](http://www.escaramujo.net)) was a series of eight hands-on laboratory courses on High Energy Physics and Astroparticle Instrumentation, in Latinamerican Institutions. The Physicist Federico Izraelevitch traveled on a van with his wife and dogs from Chicago to Buenos Aires teaching the courses. The sessions took place at Institutions in Mexico, Guatemala, Costa Rica, Colombia, Ecuador, Peru and Bolivia at an advanced undergraduate and graduate level. During these workshops, each group built a modern cosmic ray detector based on plastic scintillator and SiPMs, designed specifically for this project. After the courses, a functional detector remained at each institution to be used by the faculty to facilitate the training of future students and to support and enable local research activities. The five-days schools covered topics such as elementary particle and cosmic ray Physics, radiation detection and instrumentation, low-level light sensing with solid state devices, front-end analog electronics and object-oriented data analysis (C++ and ROOT). About a hundred of talented and highly motivated young students were reach out with the initiative. With the detector as a common thread, they were able to understand the designing principles and the underlying Physics involved, build the device, start it up, characterize it, take data and analyze it, in the way of real elementary particle Physics experiment. Besides the aims to awaken vocations in science, technology and engineering, The Escaramujo Project was an effort to strengthen the integration of academic institutions in Latin America into the international scientific community.

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