

# **A BALLOON-BORNE EXPERIMENT TO MEASURE THE FLUXES OF COSMIC-RAY MUONS IN THE ATMOSPHERE**

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The WiZard Collaboration has performed several measurements of cosmic-ray muons in the atmosphere, which have contributed significantly to the current understanding of the atmospheric neutrino scenario. However, the long advocated muon calibration of the atmospheric shower calculations is yet to come. This is essentially due to the limited statistical significance and normalization accuracy of the studies proposed so far, which are based on the analyses of the small data samples collected during the ascent phases of conventional balloon flights. The WiZard Collaboration is preparing an experiment, to be performed in 2002, for muon and other particle measurements at different levels of altitude in a dedicated effort. In this presentation we shall discuss the approach proposed for this flight, the experimental apparatus and the improvements with respect to previous measurements that we expect to get.