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Measurement of the cosmic ray Moon shadow with the ANTARES detector.

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The ANTARES detector is the largest neutrino telescope currently in operation in Mediterranean sea. One of the main goals of the ANTARES telescope is the search for point-like neutrino sources, so both the pointing accuracy and the angular resolution of the detector need a proper direct estimation. One possibility to evaluate the pointing performance of the detector is to analyse the shadow of the Moon, i.e. the deficit in the atmospheric muon flux in the direction of the Moon induced by absorption of cosmic rays. The ANTARES data taken between 2007 and 2016 shows a Moon shadow evidence of about 3.5σ significance. This is the first measurement of the ANTARES angular resolution and absolute pointing for atmospheric muons using a celestial calibration source. The presented results confirm the good pointing performance of the detector as well as the predicted angular resolution.

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