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Cosmic ray anisotropy from AMANDAs point of view

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The AMANDA detector has been operated at the South Pole until 2006 and recorded a total ~9·10^9 muons above ~1 TeV between 2000 and 2006. With a data set of this size, it is possible to probe the southern sky for per-mil anisotropy on all angular scales in the arrival direction distribution of cosmic rays thereby extending anisotropy measurements performed with IceCube.
The data presented here were collected with the AMANDA MuonDAQ. Great care has been taken to apply proper data selection cuts and to account for temporal instabilities during data taking. We shall describe the analysis including corrections for spatial asymmetries of the detector and for down times of data taking. For each single year we find asymmetries in the distribution of right ascension with amplitudes of about 5x10-4 and phases around 50 degree, well in agreement with earlier results from IceCube. No significant long term variation is found in the data.

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