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Variations of the cut off rigidities for the world wide muon telescope network over the period of continues monitoring of cosmic rays.

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In this paper the geomagnetic cutoff rigidities for the World Network of muon telescopes were obtained by the method of trajectory calculations. Calculations were carried out for the period 1950-2020, with the annual resolution. Geomagnetic cutoff rigidities were obtained by the model Definitive Geomagnetic Reference Field for 1950-2015 and by the model of International Geomagnetic Reference Field for 2020. For the trajectory with rigidity below penumbra the contribution of penumbra was considered in the approximation of flat and power (indices 0 and 1) spectrum of the cosmic ray variations. The results of calculations evidence about total decrease of geomagnetic cutoff rigidities in all the points, which is associated with general decrease of the geomagnetic field during the reporting period.

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