Time in astronomy, rotation of the Earth – theory and observations

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Abstracts

The historical outline of time measurements and definition of different time scales as well as the description of the techniques used for their realization will be given. Theory of rotation of both rigid and non-rigid Earth models will be presented, and different geophysical processes that influence the Earth orientation in space will be described. Evolution of different observational techniques used to monitor Earth orientation will be outlined, and the results of measuring the temporal changes of Earth orientation parameters will be shown and analyzed.