Japan Geoscience Union Meeting 2015
(May 24th - 28th at Makuhari, Chiba, Japan)

PEM07-31 Room:302 Time:May 25 17:45-18:00

Open Data of Sunspot and aurora records in the Chinese chronicles : 7th to 13th century

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Records of sunspots and aurora observations in pre-telescopic historical documents can provide useful information about solar activity in the past. This is also true for extreme space weather events, as they may have been recorded as large sunspots observed by the naked eye or as low-latitude auroras. In this study, we present the results of a comprehensive survey of sunspots and aurora records in Chinese formal chronicles spanning the 7th to 13th . This chronicles contain records of continuous observations with well-formatted reports conducted as a policy of the government. A brief comparison of the frequency of sunspots and aurora observations and the observations of radioisotopes as an indicator of the solar activity during corresponding periods is provided. In our project, we survey and compile the sunspots and aurora records in historical documents from various locations and languages, ultimately providing it to the academic community, not only community of natural science but also human and social sciences, as open data.

Keywords: sunspot, aurora, archaeoastronomy, extream space weather