

R010-03

B会場：11/27 AM1 (9:00-10:15)

9:30~9:45

#宮原 ひろ子¹⁾, 片岡 龍峰²⁾, 山本 和明³⁾, 門叶 冬樹⁴⁾, 森谷 透⁴⁾, 武山 美麗⁴⁾, 櫻井 敬久⁴⁾, 大山 幹成⁵⁾, 堀内 一穂⁶⁾, 堀田 英之⁷⁾

(¹⁾ 武蔵美, (²⁾ 極地研, (³⁾ 国文研, (⁴⁾ 山形大, (⁵⁾ 東北大, (⁶⁾ 弘前大, (⁷⁾ 名大

Solar cycles and extreme space weather events in the Medieval Solar Activity Maximum

#Hiroko Miyahara¹⁾, Ryuho Kataoka²⁾, Kazuaki Yamamoto³⁾, Tokanai Fuyuki⁴⁾, Toru Moriya⁴⁾, Mirei Takeyama⁴⁾, Sakurai Hirohisa⁴⁾, Ohyama Motonari⁵⁾, Kazuho Horiuchi⁶⁾, Hideyuki Hotta⁷⁾

(¹⁾Musashino Art University, (²⁾National Institute of Polar Research, (³⁾National Institute of Japanese Literature, (⁴⁾Yamagata Univ., (⁵⁾Tohoku Univ., (⁶⁾Hirosaki Univ., (⁷⁾Nagoya Univ.

Solar activity indicates centennial and longer-term variations in addition to the basic decadal-scale cycles. Such long-term variations sometimes result in extremely high solar activity periods, such as the Medieval Solar Activity Maximum. During this time, several large sunspots and red auroral events were recorded in the literature. In this presentation, we report solar cycles based on the annually measured carbon-14 content in tree rings from around 1190-1120 CE, one of the periods when the Sun was most active. We find that solar cycles were modulated to be shorter compared to the modern period. Comparison with extreme space weather events and solar cycles suggests that extreme events can also occur near the minima of solar cycles during such high solar activity periods.