Periodic variations in the thermospheric density

Liu Huixin¹⁺ ; Tsubosaki Hiroyuki¹
LIU, Huixin¹⁺ ; TSUBOSAKI, Hiroyuki¹

¹ 九州大学
Kyushu University, Japan

We examined the periodic variation of thermosphere in this study using the thermospheric total mass density at 400km altitude derived from more than 5000 flying objects during 1967-2013, and also those measured by the accelerometer aboard the CHAMP satellite during 2001-2010. Among the periodic variations, we found a prominent 2-3 year period. Correlation of this density variation with QBO and ENSO indices are carried out to investigate possible lower atmosphere driver of this thermosphere variability.

キーワード: thermosphere
Keywords: thermosphere