



Space Exploration: Interstellar Turbulence, Solar Prominence Eruption and Amazing Auroras

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In this talk, several spectacular phenomena observed in the interstellar medium, in the solar corona and in the Earth's magnetosphere/atmosphere will be presented. Topics covered include (a) the interstellar medium has a Kolmogorov turbulence spectrum with wavelengths extending from 100m to 1018m, (b) the formation and eruption of solar prominences as well as coronal rains, (c) the formation of amazing auroras and auroral kilometric radiation(AKR), and (d) the discovery of "gigantic jets" in the Earth's upper atmosphere.

太空科學時代起始於 1957 年，第一顆人造衛星 Sputnik 升空。之後，許多國家都展開對太空及宇宙的探索。這次的演講將介紹許多觀測到的太空奇觀：(a) 星際空間的氣體湍流，具有 Kolmogorov 的湍流能譜，其尺度從 100 米到 1018 米；(b) 太陽日珥的形成及爆發；(c) 地球極區美麗極光及波長千米射電波的形成；(d) 地球高層太氣中” 巨大噴流” 的發現。