

## Observation of low-latitude aurora by color digital cameras in Hokkaido

Hidehiko Suzuki<sup>1\*</sup>, Chino Haruka<sup>1</sup>, Yasuo Sano<sup>2</sup>, Makoto Taguchi<sup>1</sup>

<sup>1</sup>Rikkyo University, <sup>2</sup>Nayoro Observatory

Auroras observed in the middle latitude regions during a strong geomagnetic storm are called "low latitude auroras". Characteristics and mechanism of the low latitude aurora are still not fully understood due to a relatively low occurrence probability. Shiokawa et al. [2005] summarized low latitude aurora events observed with a sensitive optics (an imager and a photometer) at Moshiri (44.4°N) and Rikubetsu (43.5°N) in Hokkaido during 1999-2004. According to Shiokawa et al. [2005] several events in which OI 630.0 nm auroral emission showed visible level brightness (> several kR) were recorded while SAR arcs appeared during the recovery phase of a geomagnetic storm. Although there are no explicit reports of naked eye observations during the events in their report, several color images of low latitude aurora were taken at the Nayoro observatory in Hokkaido (44.4°N) in the same periods (6 nights between Mar 31 2001 and Nov 10 2004). In this presentation comparison between parameters estimated from these new color images and results from Shiokawa et al. [2005] are performed.

Keywords: Low latitude aurora, magnetosphere, imaging, Hokkaido, Nayoro