

Color matching the aurora

F. Sigernes^{1,2}, J. Mattanen³, D. A. Lorentzen^{1,2},
S. Chernouss⁴, and C. S. Deehr⁵

¹*The University Centre in Svalbard (UNIS), N-9171 Longyearbyen, Norway*

²*The Birkeland Centre for Space Science, University of Bergen, Norway*

³*Arctic Research Centre of the Finnish Meteorological Institute, Finland*

⁴*Polar Geophysical Institute, Apatity, Russia*

⁵*Geophysical Institute, University of Alaska, Fairbanks, USA*

e-mail: fred@unis.no

An automatic detection algorithm of aurora based on color matching is outlined. A color all-sky EMCCD (Electron Multiplied Charged Coupled Device) camera has been assembled. The camera is able to detect aurora at high frame rates. Auroral classification is obtained by cake sliced thresholds of the HSL (Hue Saturation Lightness) color space.