

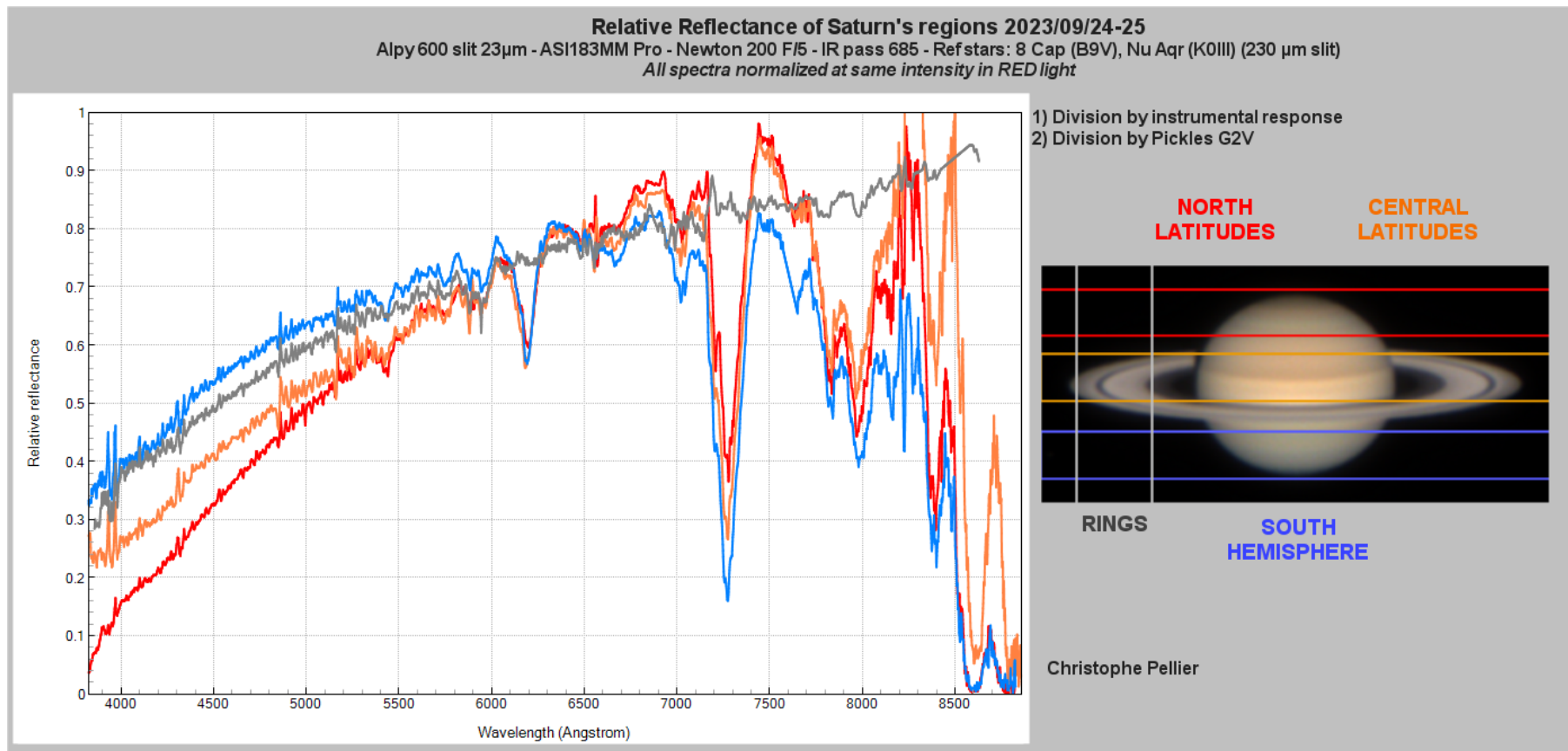
The Colors of Saturn Through Spectroscopy (Sept 25, 2023)

by Christophe Pellier

My setup has a 23 μ m slit which spans around 5 arc seconds of width on the sky. With that, it is possible to divide the planet into three regions: the southern hemisphere, the central part (excluding the rings in front of the globe) and the northern latitudes.

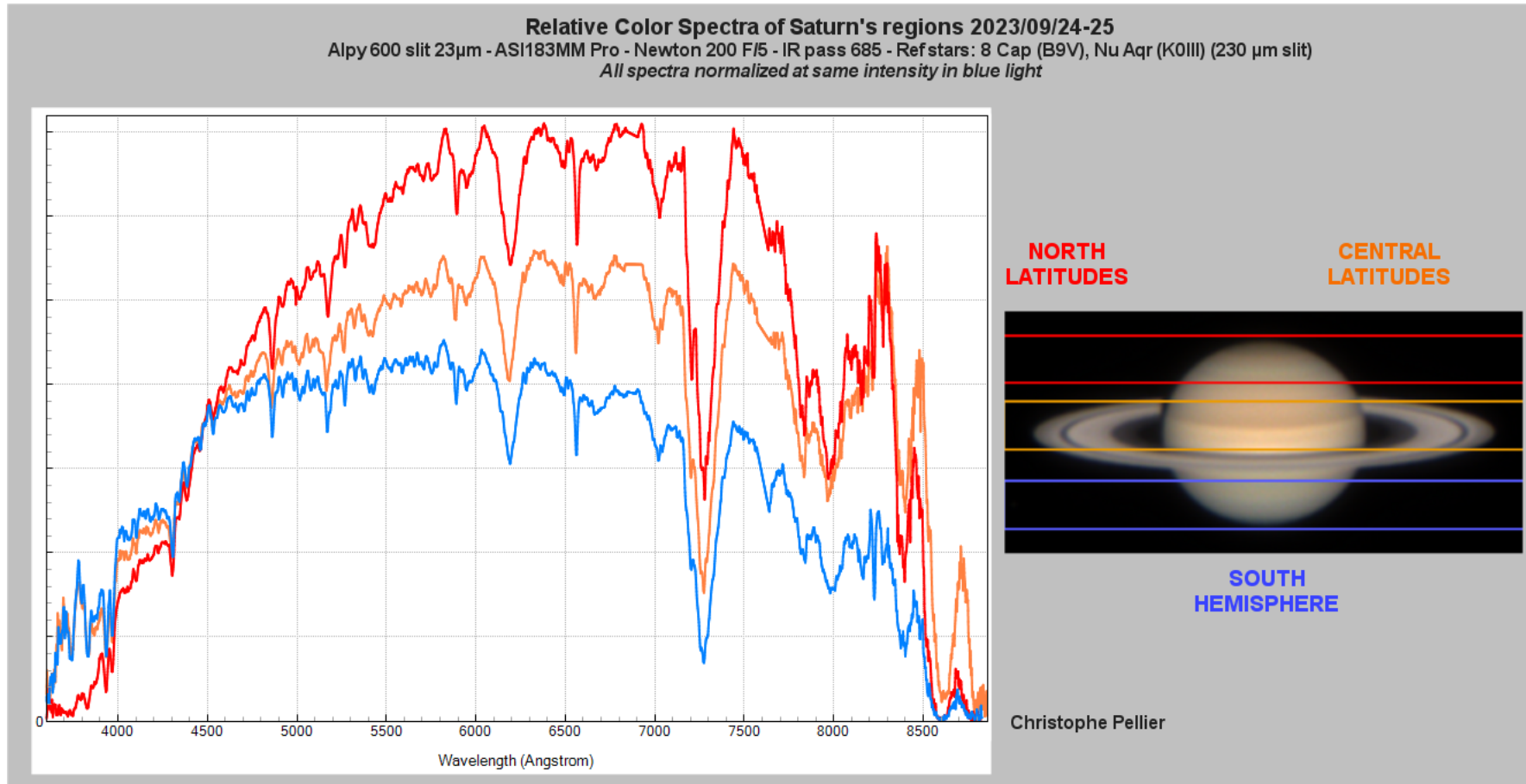
My idea was to try to detect the relative color differences of the three regions, especially of the southern hemisphere, which is currently noticeably blue-green in color.

The results correctly detect the relatively low response of the S. hemisphere in red, hence its "cold" color, as well as the redness of the northern polar regions.



The Colors of Saturn Through Spectroscopy (Sept 25, 2023)

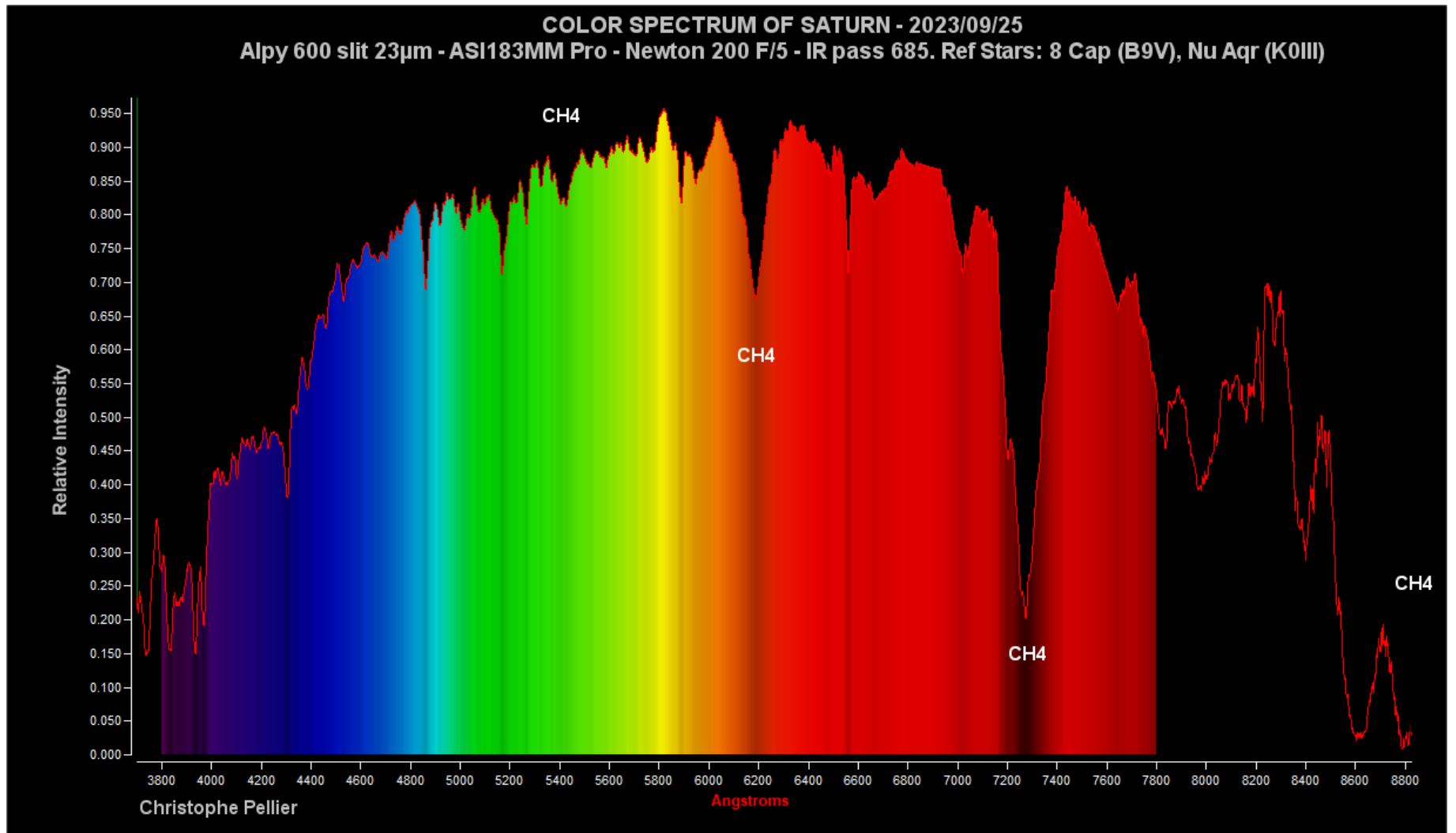
by Christophe Pellier



It also shows that at the current polar tilt and solar angle, the colors of the rings are very close to that of the globe taken as a whole (so they are not white or blue, but yellow/grey). Of course, it should have been different during the opposition surge, or during the years of equinox.

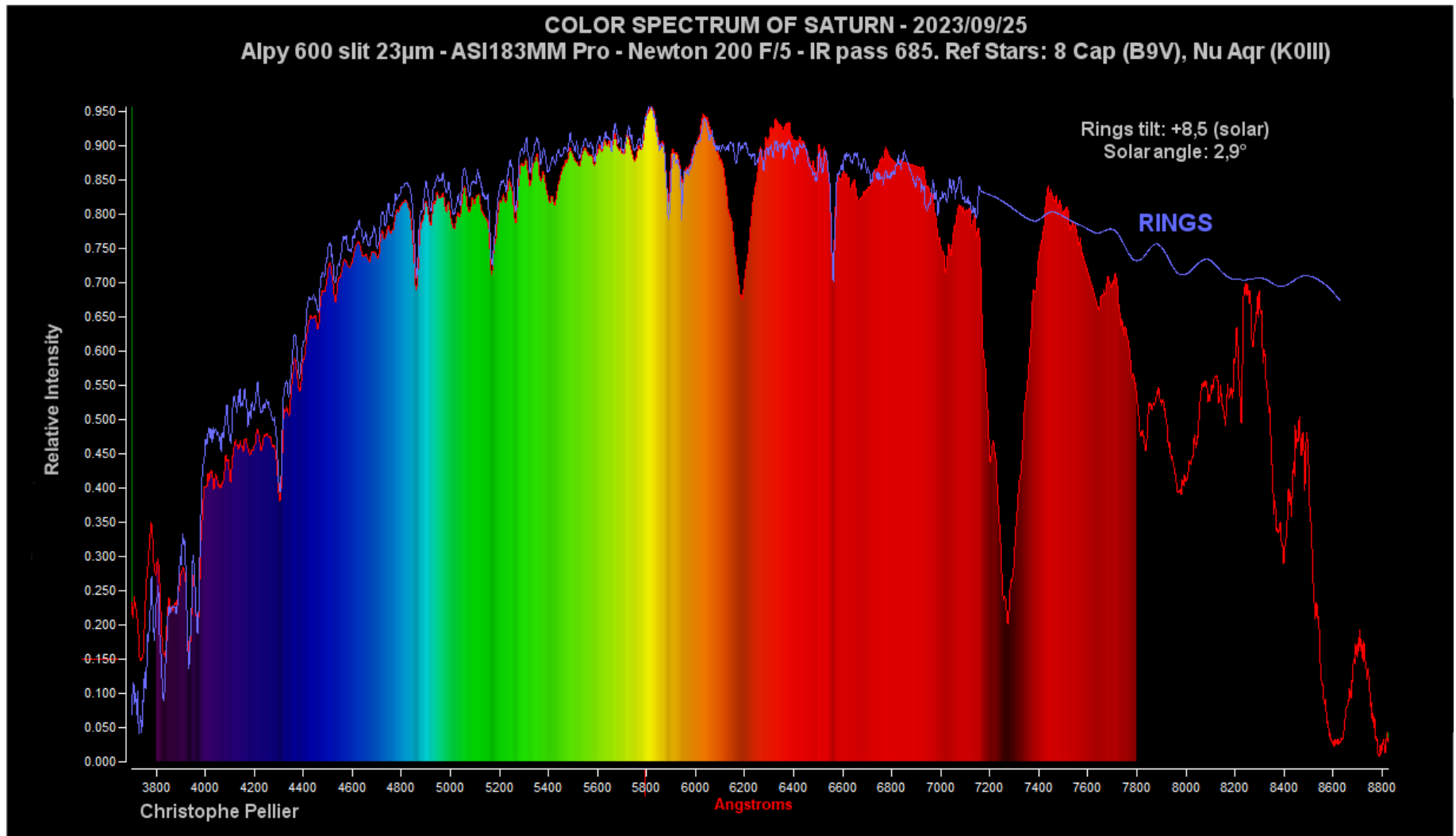
The Colors of Saturn Through Spectroscopy (Sept 25, 2023)

by Christophe Pellier



The Colors of Saturn Through Spectroscopy (Sept 25, 2023)

by Christophe Pellier



But please don't ask me to try to take a spectrum of the spokes 🙄