

# Klobuchar ionospheric correction

October 20, 2014

The file *orbit.dat* contains the position of all GPS satellites for September 1 2014 between 8:00 UT1 and 10:00 UT1 with respect to the WGS84 system.

The Klobuchar coefficients for the same day are contained in the file *CGIM2390.14N*

An observer is located at the position  $L = 48^\circ.79$  and  $B = 9^\circ.19$  also with respect to WGS84.

1. Find all satellites, which are visible by the observer.
2. Make a sky-plot of all visible satellites.
3. Compute the Klobuchar range-corrections on L1 for all visible satellites
4. Make a time-correction plot for all satellites
5. Discuss the relation between the correction and the elevation angle.