

ASSIGNMENT -PHASE DOUBLE DIFFERENCES SOLUTION

Two receivers at the approximate WGS84 positions

$$\mathbf{x}_{1,0} = (4.159404458308991 \cdot 10^6, 672972.065, 4.77245255894603 \cdot 10^6)^\top$$

and

$$\mathbf{x}_{2,0} = (4.1551687403802983 \cdot 10^6, 672949.963, 4.776113966971923 \cdot 10^6)^\top$$

observe phases on the frequency f_1 to all visible satellites. The observations are stored in the files

Phase1.dat and *Phase2.dat* .

The WGS84 positions of all visible satellites are stored in the file *VisibleSatellites.dat*.

- (1) Compute the double differences solution
- (2) Approximate the matrix Q_{22} by its main diagonal
- (3) Compute the confidence sphere for the ambiguity double differences. Use the value $\chi_{247,0.05}=284.66$
- (4) Resolve the ambiguity double differences