

EPN Repro2

Combination of the coordinate solutions

Araszkiewicz A., Szafranek K., Figurski M.

EUREF TWG, 23-34 March 2015, Warsaw



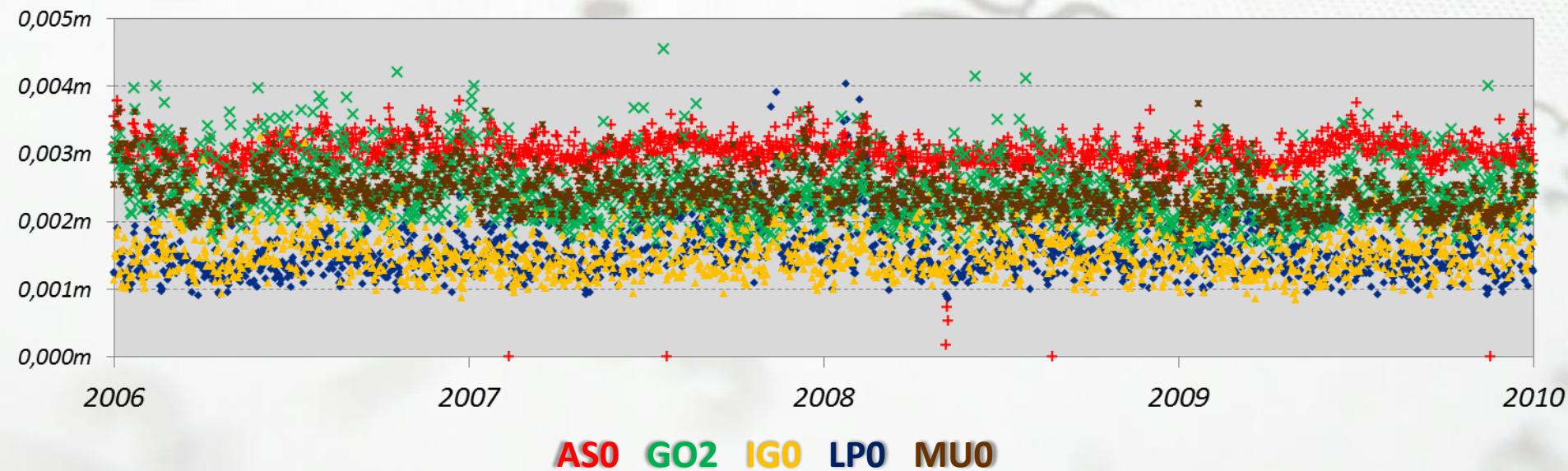
Wojskowa
Akademia
Techniczna
im. Jarosława Dąbrowskiego



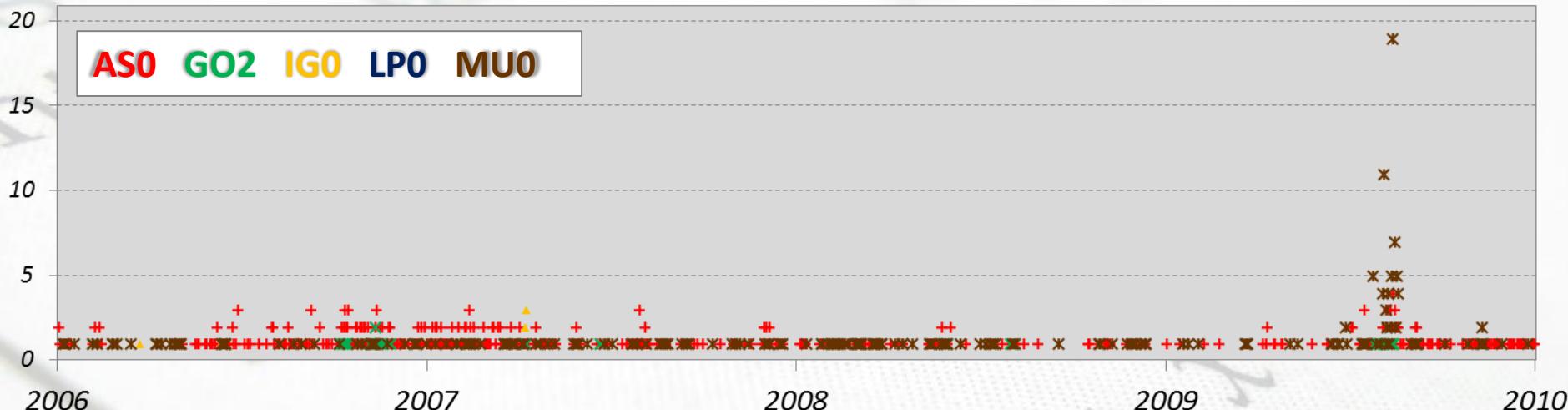
Wydział
Inżynierii Lądowej
i Geodezji

- Five solutions included (AS0, GO2, IG0, LP0, MU0)
- strategy similar to routine combination;
- the same weight for all solutions;
- loose criteria for outlier detection and station exclusion.

RMS of Helmert Transformation between individual solution and combined one



Number of excluded stations due to large residuals (25 / 25 / 35 mm)

Exclusions (numbers of days in period 1996-2000):

AS0 - KLOP(127), BOGI(104), ZECK(58), ZIMM(56), ALAC(30), SALA(24), NYAL(19), KOSG(15), BOGO (14), SCOA (13)

MU0 - ZECK(34), SNEC(25), NYAL(16), BISK(13), THU3(12)

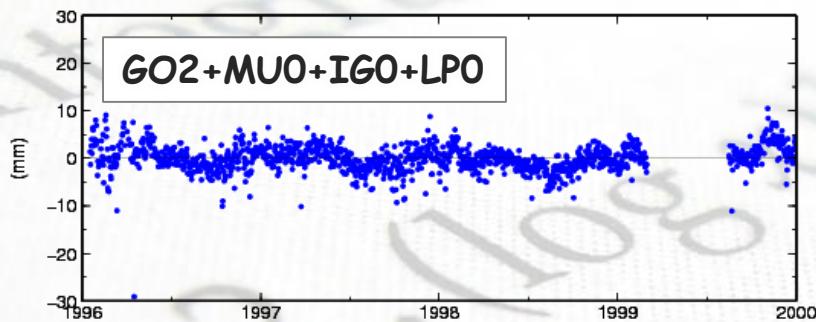
GO2 - VILL(11), SCOA(11), ZECK (6)

IG0 & LP0 – single exclusions

GLOBK analysis – first test

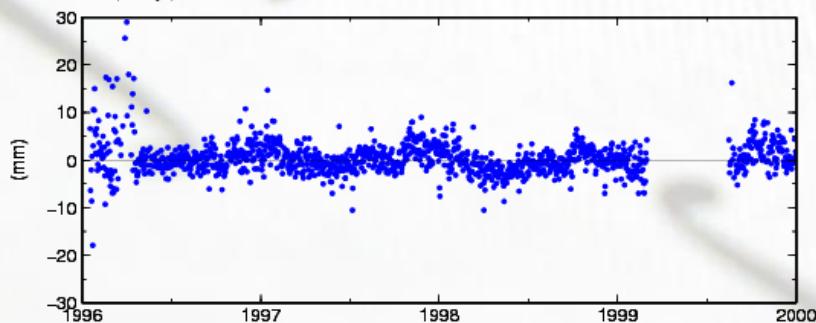
MAS1 North Offset 3090645.388 m

rate(mm/yr)= 6662.80 ± 24.94 nrms= 0.94 wrms= 2.3 mm # 1254



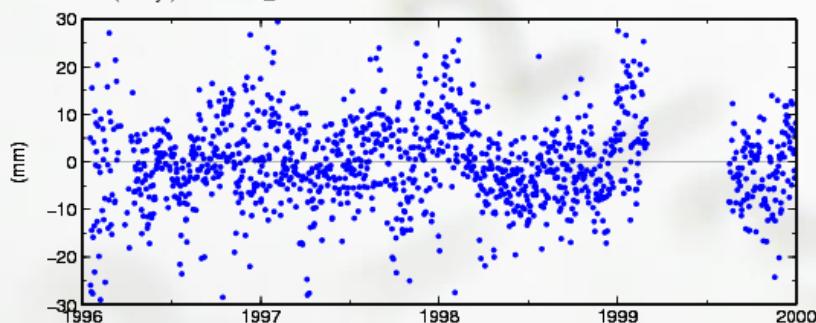
MAS1 East Offset 33921878.296 m

rate(mm/yr)= 6054.96 ± 26.30 nrms= 0.98 wrms= 2.5 mm # 1254



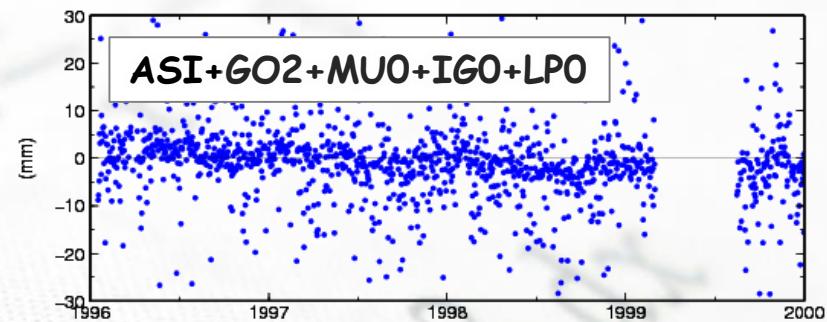
MAS1 Up Offset 197.157 m

rate(mm/yr)= -104.62 ± 99.94 nrms= 0.81 wrms= 8.0 mm # 1254



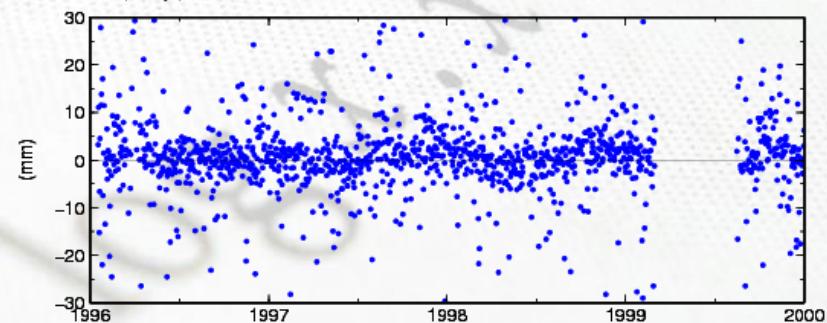
MAS1 North Offset 3090645.377 m

rate(mm/yr)= 6974.85 ± 4.45 nrms= 15.70 wrms= 6.6 mm # 1258



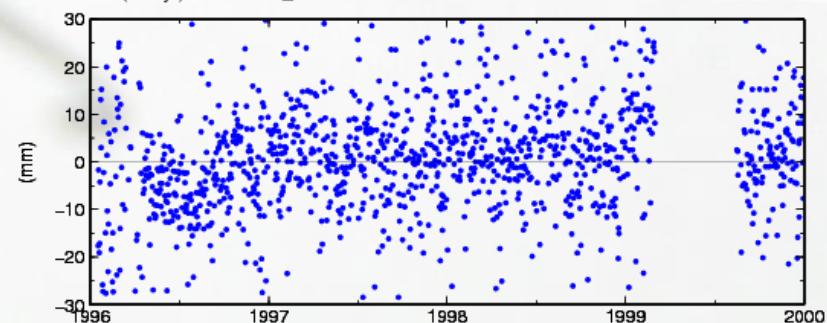
MAS1 East Offset 33921878.291 m

rate(mm/yr)= 6133.80 ± 6.29 nrms= 15.45 wrms= 10.1 mm # 1258



MAS1 Up Offset 197.137 m

rate(mm/yr)= -1239.23 ± 22.91 nrms= 11.00 wrms= 27.6 mm # 1258



- Finish diagnostics;
 - Solve problems with several SINEX files;
 - Set up the strategy for main combinations (weight, exclusion criteria, etc.);
 - Compare combination from ADDNEQ and GLOBK.
-
- Results of combination should be ready before Leipzig.