

Università di Roma "La Sapienza"
Dip. di Ingegneria Civile, Edile ed Ambientale

AREA DI GEODESIA
E DI GEOMATICA






FIG WORKING WEEK 2012
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Innovative Methodology for GNSS Data Processing

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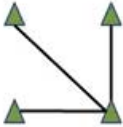
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INDEPENDENT BASELINES IN A SINGLE SESSION WITH "CLASSIC" AND MULTICONSTELLATION APPROACH.

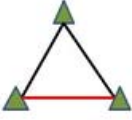


3 receivers




4 receivers

"Classic" elaboration



3 receivers



4 receivers

Multi-Constellation elaboration

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TEST NET

	X (m)	Y (m)	Z (m)
UNPG	4555146.162	997822.219	4337432.566
REFO	4561083.779	1028178.388	4324106.922
REPI	4573777.964	972388.553	4324002.439

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SUBCONSTELLATIONS

1° SUBCONSTELLATION	2° SUBCONSTELLATION
G1, G3, G6, G16, G18, G25, G32, R1, R7, R8, R12, R13	G5, G11, G14, G19, G21, G22, G24, G29, G30, G31, R2, R11, R15, R17, R21, R22, R23, R24

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	ΔX (m)	ΔY (m)	ΔZ (m)
UNPG	0	0	0
REFO	-0.004	-0.008	-0.016
REPI	0.006	0.006	0.008

Differences between reference coordinates and coordinates adjusted following a classical approach

	ΔX (m)	ΔY (m)	ΔZ (m)
UNPG	0	0	0
REFO	0	0.004	-0.018
REPI	0.01	0	0.007

Differences between reference coordinates and Multiconstellation (4GPS) coordinates

	ΔX (m)	ΔY (m)	ΔZ (m)
UNPG	0	0	0
REFO	0.002	-0.002	-0.015
REPI	0.015	0.002	0.02

Differences between ellipsocentric reference coordinates and Multiconstellation approach coordinates (0 GPS)

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