



Pós-Graduação em Ciências Geodésicas e
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ANOS




FIG WORKING WEEK 2012
territory, environment and cultural heritage
May 6-11 2012
Rome, Italy



ENGENHARIA
CARTOGRÁFICA
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Verification and Control of Vertical Bench Mark Applied for Settling Measurements of Large Structure Buildings

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Departamento de Engenharia Cartográfica












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Definition of the experiments area




BM_FIRENZE
BM_CARMEL
BM_ST




BM_ST




BM_CARMEL




BM_FIRENZE




Lines of leveling: L1



Lines of leveling: L2



Lines of leveling: L2



Lines of leveling: L3

CIRCUIT	LINES	PERIMETER [m]	CLOSING ERROR[m]	READING	READING DATA
I	L1, L2 e L3	1109,040	0,000205	1 ^a	22/12/2011
I	L1, L2 e L3	1102,385	0,000130	2 ^a	24/02/2012

Table 1: Closing Error and perimeter of the circuits made by geometric leveling.

CIRCUIT	HBM_ST [m]	HBM_CARMEL [m]	HBM_FIRENZE [m]	READING
I	0,00000	-0,52850	0,04300	1 ^a
I	0,00000	-0,52830	0,04280	2 ^a

Tabela 2: Heights of the BM.

PARTIAL RESULTS

FROM	TO	H[m]	LINE	N° of stations	LINE LENGTH [m]
BM_ST	BM_CARMEL	-0,52850	L1	08	245,375
BM_CARMEL	BM_FIRENZE	0,57150	L2	13	434,820
BM_FIRENZE	BM_ST	-0,04300	L3	11	428,845

Table 3: Differences in level between BM and level lines: 1st measurement.

FROM	TO	H[m]	LINE	N° of stations	LINE LENGTH [m]
BM_ST	BM_CARMEL	-0,52830	L1	07	239,735
BM_CARMEL	BM_FIRENZE	0,57111	L2	12	443,345
BM_FIRENZE	BM_ST	-0,04280	L3	12	419,305

Table 4: Differences in level between BM and level lines: 2nd measurement.

FROM	TO	H[m]	LINE	N° of stations	LINE LENGTH [m]
BM_ST	BM_CARMEL	-0,52830	L1	07	239,735
BM_CARMEL	BM_FIRENZE	0,57111	L2	12	443,345
BM_FIRENZE	BM_ST	-0,04280	L3	12	419,305

Table 4: Differences in level between BM and level lines: 2nd measurement.

Thank you for your attention!

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