

Table of Contents

Preface	v
Research Unit POLIMI1	1
The scientific objectives of the research line “GRAD”	
<i>A. Albertella, F. Migliaccio, F. Sansò</i>	3
Geoid determination in the Italian region	
<i>R. Barzaghi, B. Betti, A. Borghi, F. Sansò, G. Sona, V. Tornatore, G. Venuti</i>	11
GPS and its applications: some proposals on the Italian permanent network, meteorology and data analysis	
<i>B. Betti, L. Biagi, M.C. De Lacy, F. Sansò, V. Tornatore, F. Vespe</i>	23
Deformation monitoring using GPS and SAR	
<i>R. Barzaghi, A. Borghi, B. Crippa, M. Crosetto, L. Pinto, V. Tornatore</i>	35
Research Unit UNIRM	43
Platforms kinematic positioning for mapping, photogrammetry and remote sensing	
<i>M. Marsella, M. Crespi, C. Nardinocchi, V. Baiocchi</i>	45
Research Unit UNITN	59
Contribution to the design of geodetic space mission and to the use of GPS in environmental monitoring	
<i>B. Benciolini, D. Sguerso, P. Zatelli</i>	61
Research Unit UNIPI1	73
Satellite geodesy in the solar system	
<i>A. Milani, A. Rossi, D. Villani</i>	75
Research Unit POLITO	83
The use of GPS permanent stations in kinematic positioning and quality control	
<i>A. M. Manzano, A. Cina, T. Bellone, A. Lingua</i>	85
Research Unit UNICA	93
Topographic activity for the new permanent station at the Cagliari Observatory	
<i>E. Falchi, F. Resta, G. Sanna, G. Vacca</i>	95
Research Unit UNIPI2	103
Applications of GPS for urban GIS and geodetic surveys	
<i>G. Caroti, W. Ferri</i>	105
Research Unit UNIFI	119
The GPS permanent station in Prato: its use for geodetic applications	
<i>P. Aminti, F. Costantino, F. Sacerdote</i>	121

Research Unit POLIMI2	127
Geo-referencing and integration of digital images from space with remote sensed data from active sensors and geospatial observations	
<i>L. Mussio</i>	129
Research Unit UNIME	137
Use of SAR interferometry techniques for DEM generation and deformation monitoring	
<i>B. Crippa, V. Barrile, L. Giacobbe</i>	139
Research Unit UNIMI	147
The impact of high precision space geodesy on the geodynamics of the Mediterranean	
<i>R. Sabadini, A.M. Marotta, I. Jimenez-Munt</i>	149
Research Unit UNIPG	161
Quality control and validation of GPS data acquired by permanent stations	
<i>F. Radicioni, D. Dominici, A. Stoppini, S. Selli, S. Grassi</i>	163
Research Unit UNITS	177
Real time differential GNSS integrated with INS and GSM position data transmission	
<i>R. Cefalo, M. Lipizer, G. Manzoni, S. Martinolli, R. Pagurut, A. Piemonte, T. Sluga</i>	179
Research Unit SACA	187
Space geodesy based researches in the years 1998-2000 at Cagliari Observatory: the co-location of space techniques	
<i>A. Banni, F. Buffa, L. Mureddu, A. Poma</i>	189
Research Units UNIPD1 & OVNA	197
GPS, SAR and laser scanning activities in the Neapolitan volcanic areas	
<i>V. Achilli, S. Borgstrom, C. Del Gaudio, G. Salemi, V. Sepe</i>	199
Research Unit UNIMO	207
The use of GPS for meteorological applications and tide-gauges measurements	
<i>L. Balestri, M. Boccolari, S. Fazlagic', S. Pugnaghi, R. Santangelo, M. Zucchi</i>	209
Research Unit UNIPD2	221
Measurements and methods of high precision space geodesy: precise orbit determination of low-earth orbiting satellites through GPS and accelerometry	
<i>S. Casotto, A. Zin, B. Padovan</i>	223
Index of Authors	229