

Contents Part 1

Ádám József: Spaceborne VLBI beyond 2000	1
Aduol Francis W O: Robust geodetic parameter estimation under least squares through weighting on the basis of the mean square error	5
Ardalan Alireza A and Awange Joseph L: Care while using the NMEA 0183!	17
Ardalan Alireza A: Somigliana-Pizetti minimum distance telluroid mapping	27
Awange Joseph L: Partial Procrustes solution of the threedimensional orientation problem from GPS/LPS observations	41
Bähr Hans-Peter: Geodesy and Semantics – Progress by Graphs	53
Caputo Michele and Plastino Wolfango: Diffusion with space memory	59
Crosilla Fabio: Procrustes analysis and geodetic sciences	69
Dermanis Athanasios: On the maintenance of a proper reference frame for VLBI and GPS global networks	79
Dorrer Egon: From Elliptic Arc Length to Gauss-Krüger Coordinates by Analytical Continuation	91
Featherstone Will: Tests of two forms of Stokes's integral using a synthetic gravity field based on spherical harmonics	101
Förstner Wolfgang and Moonen Boudewijn: A metric for covariance matrices	113
Groten Erwin: Earth rotation as a geodesic flow, a challenge beyond 2000 ?	129
Hannah Bruce M, Kubik Kurt and Walker Rodney A: Propagation modelling of GPS signals	137
Hartung Joachim: A Short-Cut Method for Computing Positive Variance Component Estimates	151
Heck Bernhard: Integral Equation Methods in Physical Geodesy	155
Hehl Friedrich W, Obukhov Yuri N and Rubilar Guillermo F: Classical Electrodynamics: A Tutorial on its Foundations	171
Hils Alfred: Grußwort	185
Hofmann-Wellenhof Bernhard: Erik W. Grafarend – Ist Größe messbar ?	187
Ilk Karl Heinz: Energiebetrachtungen für die Bewegung zweier Satelliten im Gravitationsfeld der Erde	191
Jurisch Ronald, Kampmann Georg and Linke Janette: Über die Analyse von Beobachtungen in der Ausgleichsrechnung – Äußere und innere Restriktionen	207
Kakkuri Juhani: The challenge of the crustal gravity field	231
Keller Wolfgang: Geodetic pseudodifferential operators and the Meissl scheme	237
Kleusberg Alfred: Analytical GPS navigation solution	247
Koch Karl-Rudolf: Grundprinzipien der Bayes-Statistik	253
Leick Alfred: GLONASS Carrier Phases	261
Lelgemann Dieter and Cui Chunfang: Analytical versus numerical integration in satellite geodesy	269
Linkwitz Klaus: About the generalised analysis of network-type entities	279
Livieratos Evangelos: Intrinsic Parameters and Satellite orbital elements	295

Contents Part 2

Marchenko Alexander N: Simplest solutions of Clairaut's equation and the Earth's density model	303
Martinec Zdeněk: Stokes's two-boundary-value-problem	313
Meier Siegfried: Vom Punktlagefehler zum Qualitätsmodell	323
Mira Sjamsir: Hydrographic surveying and its education	331
Moritz Helmut: The strange behavior of asymptotic series in Mathematics, Celestial Mechanics and Physical Geodesy	335
Papo Haim: Datum accuracy and its dependence on network geometry	343
Reilly Ian W: Strain in the Earth – a geodetic perspective	355
Rizos Chris, Han Shaowei, Chen Horng-Yue and Chai Goh Pong: Continuously operating GPS reference station networks: New algorithms and applications of carrier-phase-based, medium range, static and kinematic positioning	367
Rozanov Youri and Sansò Fernando: The analysis of the Neumann and oblique derivative problem. Weak theory	379
Rummel Reiner and van Gelderen Martin: From the Generalized Bruns Transformation to Variations of the Solution of the Geodetic Boundary Value Problem	397
Schäfer Volker: Quo vadis geodesia? ... Sic erit pars publica	413
Schaffrin Burkhard: Reproducing estimators via least squares: An optimal alternative to the Helmert transformation	419
Schmitz-Hübsch Harald and Schuh Harald: Seasonal and short-period fluctuations of Earth rotation investigated by wavelet analysis	421
Schreiber Ulrich, Schneider Manfred, Stedman Geoffrey E, Rowe Clive H and Schlüter Wolfgang: Charakterisierung des C-II Ringlasers	433
Seitz Kurt: Ellipsoidal and topographical effects in the scalar free geodetic boundary value problem	439
Sideris Michael G, Fei Zhiling L and Blais J A R.: Ellipsoidal corrections for the inverse Hotine/Stokes formulas	453
Sjöberg Lars E: Triple frequency GPS for precise positioning	467
Svensson S Leif: Map projections and the boundary problems of Physical Geodesy	473
Teunissen Peter J G: GPS, Integers, Adjustment and Probability	479
Varga Péter: Geophysical Geodesy beyond 2000	487
Vermeer Martin: Geodetic science and the tools of the trade	497
Welsch Walter: Fortgeschrittene geodätische Deformationsanalyse	505
Wittenburg Rüdiger: Zur geodätischen Beschreibung von Deformationsprozessen im 3D-Bereich	515
Xu Peiliang: Random stress/strain tensors and beyond	525
You Rey-Jer: Geodesy beyond 2000: An attempt to unify Geodesy by the geodesic flow in all branches	549
Yurkina M I: A solution of Stokes' problem for the ellipsoidal Earth by means of Green's function	557
List of Authors.....	565