

## 8 Literatur

- AHLFELD, F. (1946): Geología de Bolivia.- Revista del Museo de La Plata (NS), 3 (19) : 5-370.
- AHLFELD, F. & BRANISIA, L. (1960): Geología de Bolivia. Edition Don Bosco, La Paz, 215 S.
- AITCHESON, S., WÖRNER, G., HARMON, R., MOORBATH, S., SCHNEIDER, A., SOLER, P., SORIA-ESCALANTE, E., SWAINBANK, I. & STEELE, G. (1993): Basement domains of the Altiplano in Bolivia and Chile revealed by Pb isotopes. AGU-meeting San Francisco, EOS supplements Vol.74, No. 43 : 662.
- ALLMENDINGER R.W., JORDAN T.E., KAY S.M. & ISACKS B.L. (1997): The evolution of the Altiplano-Puna Plateau of the central Andes. Annual Review of Earth and Planetary Sciences 25: 139-174.
- APEXSILVER LTD., ANNUAL REPORT (1998).
- ARGOLLO, J. & MOURGUIART, P. (2000): Late Quarternary climate history of the Bolivian Altiplano. Quarternary Internationals, 72, 37-51.
- ARONOFF, S. (1991): Geographic Information Systems: A management perspective. 296 S., Ottawa.
- BABY, P., SEMPERE, T., OLLER, J., BARRIOS, L., HÉRAIL, G. & MAROCCO, R. (1990): Un bassin en compression d'âge oligo-miocène dans le sud de l'Altiplano bolivien. C. R. Acad. Sc. Paris, 311, Série II, 341-347.
- BABY, P., SEMPERE, T., OLLER, J., & HÉRAIL, G. (1997): Evidence for major shortening on the eastern edge of the Bolivian Altiplano: The Calazaya nappe. Tectonophysics, 205, 155-169.
- BAK, P.R.G., CRAM, D.L. & PRISSANG, R. (1992): Interactive Evaluation of Linear Octree Encoded Deposit Models.- Proc. 23rd Int. APCOM Symp., 691-700, Littleton, CO
- BARTELME, N. (1995): Geoinformatik: Modelle, Strukturen, Funktionen. 414 S. Berlin (Springer).
- BAUER, C. (1994): Digitale Bildverarbeitung von großräumigen Satellitenbild-Verbänden: Mosaikbildung, multitemporale Analyse und Klassifizierung. 97 S. Berliner geowissenschaftliche Abhandlungen, D, 6.
- BECK, S., ZANDT, G., MYERS, S., WALLACE, T., SILVER, P. & DRAKE, L. (1996): Crustal thickness variations in the Central Andes. Geology, 24, 407-410.
- BENJAMIN, M., JOHNSON, N., NAESER, C. (1987): Recent rapid uplift in the Bolivian Andes: Evidence from fission-track dating. Geology, 15, 680-683.
- BIDO, I. (1998): Der Oberlauf des Rio Loa in den nördlichen chilenischen Anden : - Auswirkungen von Tektonik auf Relief und Entwässerung. analysiert mit Hilfe von Fernerkundung und GIS. 150 S. Verlag für Wissenschaft und Technik.
- BILL, R. & FRITSCH, D. (1991): Grundlagen der Geoinformationssysteme, Band 1: Hardware, Software und Daten, 414 S., Karlsruhe.
- BLACHUT, T.J. & BURKHARDT, R. (1989): Historical Development of Photogrammetric Methods and Instruments. 157 S. ASPRS.
- BRASSE, H. & SOYER, W. (2001): A magnetotelluric study in the Southern Chilean Andes. - Geophys. Res. Let., 28 (19), 3757-3760.
- CADIMA, J. (1976): Informe geológico regional del área de Nor Lipez, Altiplano sur (Campaña 1973).- Informe interno YPFB (GXG-2052), Oruro.
- CAMPBELL, J.B. (1987): Introduction to remote sensing. 551 S. New York.
- CHAVEZ, P.S., BERLIN, G.L. & SOWERS, L.B. (1982): Statistical method for selecting Landsat MSS ratios. J. Applied Photograph. Eng., 8, 23-30.
- CRACKNELL, A. & HAYES, L. (1991): Introduction to remote sensing. 2<sup>nd</sup> Ed. 220 S. London.
- CRANE, R. B. (1971): Processing techniques to reduce atmospheric and sensor variability in multispectral scanner data. Proceedings of the 7<sup>th</sup> International Symposium on Remote Sensing of the Environment, 2, 1345-1355.

- CRIPPEN, R. E. (1988): The dangers of underestimating the importance of data adjustments in band ratioing, *Journal of Remote Sensing*, 9, 4, 767-776.
- CRIPPEN, R. E., BLOM, R. G. & HEYADA, J. R. (1988): Directed band ratioing for the retention of perceptually-independent topographic expression in chromaticity-enhanced imagery, *Journal of Remote Sensing*, 9, 4, 767-776.
- DELAUNAY, B. (1934): Sur la sphère vide. *Bulletin der Akademie der Wissenschaften der UdSSR, Classe sci. Mat. Nat.*, 793-800.
- DRURY, S. A. (1993): *Image interpretation in Geology*, 2<sup>nd</sup> edn. London, Chapman and Hall.
- EGE, H. (in prep.): Exhumationsgeschichte des Altiplano und der Ostkordillere Südbolivians anhand von Apatit Spaltspur-Datierungen. Dissertation Freie Universität Berlin.
- EGENHOFF, S. (2000): Sedimentologie und Beckenentwicklung im Ordovizium in Südbolivien. 173 S. *Berliner Geowissenschaftliche Abhandlungen, A*, 207.
- EHLERS, M. (1993): Integration of GIS, remote sensing, photogrammetry and cartography: the geoinformatics approach. *GIS*, 6, 5, 18-23.
- ELGER, K. (in prep.): Analysis of deformation and tectonic history of the southern Altiplano Plateau (Bolivia) and their importance for plateau formation. Dissertation Freie Universität Berlin, Potsdam.
- ELGER, K., ONCKEN, O. & KUKOWSKI, N. (2001): History of crustal shortening in the Southern Altiplano in Bolivia and its importance for plateau formation. SFB 267 - Deformation processes in the Andes, Report for the search period 1999-2001, SP C1B, 53-77, Berlin/Potsdam.
- ESCOBAR, A.D. & HINJOSA, A.V. (1993): Geología de los yacimientos minerales del destrito de San Cristóbal, provincia Nor Lipéz del Departamento de Potosí. *Boletín GEOBOL*, 1, 117-125.
- FIEDLER, K. (2002): Die kretazisch-alttertiäre Entwicklung des südlichen Potosí-Beckens (Südbolivien). 162 S., *Berliner Geowissenschaftliche Abhandlungen, A*, 215.
- FERNÁNDEZ, R.F., 1972, Aspectos geológicos de una zona del alto río Pampas; Huancavelica-Ayacucho (Perú): *Boletín Geológico y Minero*. 83, p. 611-622.
- FRANCIS, P.W. & HAWKESWORTH, C.J. (1994): Late Cenozoic rates of magmatic activity in the Central Andes and their relationship to continental crust formation and thickening. *Geological Society (London) Journal*, 151, 845-854.
- GEERKEN & KAUFMANN, H. (1991): Spektroskopie mit Fernerkundungsdaten. In: BÄHR, H.-P. & VÖGTLE, T. [Hrsg.] (1991): *Digitale Bildverarbeitung - Anwendung in Photogrammetrie, Kartographie und Fernerkundung*. 2. Aufl., Karlsruhe.
- GIERLOFF, H.-G. & SCHROEDER-LANZ, H. (1970): *Luftbildauswertung, Band I: Grundlagen*. 154 S. Hochschultaschenbücher Bibliographisches Institut, Mannheim.
- GIESE, P., SCHEUBER, E., SCHILLING, F., SCHMITZ, M. & WIGGER, P. (1999): Crustal thickening processes in the Central Andes and the different natures of the Moho-discontinuity. *Journal of South American Earth Sciences*, 12, 201-220.
- GILLESPIE, A. R., KAHLE, A. B. & WALKER, R. E. (1986): Colour enhancement of highly correlated images, I. decorrelation and HSI contrast stretches, *Remote Sensing of the Environment*, 20, 209-235.
- GILLESPIE, A. R., KAHLE, A. B. & WALKER, R. E. (1987): Colour enhancement of highly correlated images, II. Channel ration and "chromaticity" transformation techniques, *Remote Sensing of the Environment*, 22, 343-365.
- GÖPFERT, W. (1991): *Raumbezogene Informationssysteme*. 2. Aufl., 333 S., Karlsruhe.
- GÖTZE, H.-J., M. ARANEDA, J. FRITSCH, M. KÖSTERS & S. SCHMIDT (1997): The gravity field of the continent-ocean transition mapped from land, air, and sea - western margin of South America. -Abstracts VIII Congreso Geológico Chileno, 1: 717-722.
- GÖTZE, H.J. & KRAUSE, S. (2002): The Central Andean gravity high, a relic of an old subduction complex?. *J. of South Am. Earth Sc.*, 14, S. 799-811.
- GRIMAUD, P., RICHERT, J.P., ROLET, J., TIERCELIN, J.J., XAVIER, J.P., MORLEY, C.K., COUSSEMENT, C., KARANJA, S.W., RENAUT, R.W., GUÉRIN, G., LE TURDU, C. & MICHEL-NOEL, G. (1994): Fault geometry and extension mechanisms in the central Kenya Rift, East Africa. *A*

- 3D remote sensing approach. Bulletin Centre de Recherches Exploration Production Elf Aquitaine, 18 (1), S. 59-92.
- GUBBELS, T. L., ISACKS, B. L. & FARRAR, E. (1993): High-level surfaces, plateau uplift, and foreland development, Bolivian Central Andes. *Geology*, 17, 695-698.
- HAKKE, G. (1982): Kartographie. 1: Allgemeines, Erfassung der Information, Netzenwürfe, Gestaltungsmerkmale, topographische Karten. 6. Aufl. 342 S. Berlin.
- HAMPTON, B.A. & HORTON, B.K. (2000): Late Eocene-Oligocene fluvial deposystems in the north-central Altiplano plateau, Bolivian Central Andes. *Geology*, 21, 695-698.
- HERTZ, H. (1894): Prinzipien der Mechanik.
- HOBBS, W. H. (1912): Earth features and their meaning. Macmillan Co., 506 p. New York. In: O'LEARY, D. W., J. D. FRIEDMAN & H. A. POHN (1976): Lineament, linear, lineation: some proposed new standards for old terms. *Geol. Soc. Amm. Bull.*, 87(8): 1463-1469.
- HOKE, L., HILTON, D., LAMB, S., HAMMERSCHMIDT, K. & FRIEDRICHSEN, H. (1994): <sup>3</sup>He evidence for a wide zone of active mantle melting beneath the Central Andes. *Earth and Planetary Science Letters*, 128, 341-355.
- HORTON, B.K., HAMPTON, B.A. & COPELAND, P. (2000): Revised age of tertiary foreland basin deposits in the Bolivian Altiplano plateau and implications for subsidence history. AAPG Annual Meeting 2000.
- HORTON, R. (1945): Erosional development of streams and their drainage basins, hydrophysical approach to quantitative morphology. *Bulletin of the Geological Society of America*, 56, 275-370.
- HOULDING, S. W. (1994): 3-D Geoscience Modeling – Computer Techniques for Geological Characterization. 309 S. Springer.
- HUND, F. (1965): Denkschemata und Modelle in der Physik. *Studium Generale* 18 174 - 183.
- ICHOKU, C. & KARNIELI, A. (1996): A review of mixture modeling techniques for sub-pixel land cover estimation. *Remote Sensing Reviews*, 13, 161-186.
- ISACKS, B. L. (1988): Uplift of the Central Andean plateau and bending of the Bolivian orocline. *J. Geophys. Res.*, 93, 3211-3231.
- JAMMER, M. (1965): Die Entwicklung des Modellbegriffes in den physikalischen Wissenschaften. *Studium Generale* 18, 166 - 173.
- JARRANDILLA, J. (1988): Informe geológico regional y estratigráfico de detalle en secciones del Altiplano sur, Cordillera Oriental Centro y Sur. Informe interno YPF (GXG 3158), Santa Cruz.
- KAUFMANN & PFEIFFER (1986): Image optimization versus classification.- An application oriented comparison of different methods by use of Thematic Mapper data. In: DAMEN, M.C.J., SICCO SMIT, G. & VERSTAPPEN, H.T. (eds.): *Remote sensing for resources development and environmental management*, 1, 31-35.
- KENEA, N. H. (1997): Digital Enhancement of Landsat Data, Spectral Analysis and GIS Data Integration for Geological Studies of the Duredeb Area, Southern Red Sea Hills, NE Sudan. *Berliner Geologische Abhandlungen*, D, 14.
- KIRCHNER, A. (1997): 3-D Dichtemodellierung zur Anpassung des Schwere- und des Schwerepotentialfeldes der zentralen Anden. 98 S., *Berliner Geowiss. Abh.*, B, 25.
- KOIKE, K., NAGANO, S. & KAWABA, K. (1998): Construction and analysis of interpreted fracture planes through combination of satellite-image derived lineaments and digital elevation model data. *Computers & Geosciences*, Vol. 24, No. 6, 573-583.
- KRISHNAMURTY, J., MANALAVAN, P. & SAIVASAN, V. (1992): Application of digital enhancement techniques for groundwater exploration in hard rock terrains. *International Journal of Remote Sensing*, 13, 2925-2942.
- KRONBERG, P. (1985): *Photogeologie*. 268 S. Stuttgart.
- LAMB, S., HOKE, L. & KENNAN, L. (1997): The cenozoic evolution of the Central Andes in Bolivia and Northern Chile. In: *Orogens through time*, Spec. Publ. Geol. Soc. London, 121, 237-264.
- LAMB, S. & HOKE, L. (1997): Origin of the high plateau in the Central Andes, Bolivia, South America. *Tectonics*, 16, 4, 623-649.

- LANDGREBE, D.A. (1978): The quantitative approach: Concept and rationale. – In: SWAIN, P.H. & DAVIS, S.M. (eds.): Remote sensing: The quantitative approach, 1-20.
- LAURINI, R. & THOMSON, D. (1992): Fundamentals of spatial information systems. 680 S., London (Academic Press).
- LAWSON, C.L. (1977): Software for  $C_1$  Surface Interpolation. - In: Rice, J.R. (ed.) (1977): Mathematical Software III. Mathematics Research Center, University of Wisconsin-Madison, 39, Academic Press, 161-194.
- LE TURDU, C., COUSSEMENT, C., TIERCELIN, J.J., RENAUT, R.W., ROLET, J., RICHERT, J.P., XAVIER, J.P. & COQELET, D. (1995): Rift basin structure and depositional patterns using a 3D remote sensing approach: the Baringo and Bogoria basins, central Kenya Rift, East Africa. Bulletin Centre de Recherches Exploration Production Elf Aquitaine, 19 (1), S. 1-37.
- LEVENHAGEN, J. (2001): Geologie und Tektonik im Gebiet San Cristóbal-Corregidores, südwestlicher bolivianischer Altiplano (21° S, 67°2' W). Diplomarbeit, FU Berlin, 81 S.
- LEVY, B. & MALLET, J. L. (1998): Non-distorted texture mapping for sheared triangulated meshes. Proceedings of SIGGRAPH 98: 25<sup>th</sup> International Conference on Computer Graphics and Interactive Techniques, Orlando, 343-352.
- LILLESAND, T.M. & KIEFER, R.W. (1999): Remote Sensing and Image Interpretation, 4<sup>th</sup> ed., 724 S. Wiley.
- LIST, F.K. (1969): Quantitative Erfassung von Klufnetz und Entwässerungsnetz aus dem Luftbild. BuL, 37, 134-140.
- LIST, F.K. (1993): Fundamentals of digital image processing. In BANKWITZ, P. & LIST, F. K., Hrsg. (1993): Proceedings of the Fourth United Nations/CDG International Training Course on remote sensing applications to geological sciences, held in Potsdam and Berlin, September 28 to October 16, 1992. Berliner Geologische Abhandlungen, D, 5, 7-29.
- LIST, F.K., MEIBNER, B. & PÖHLMANN, G. (1990): Application of remote sensing and satellite cartography in preparing new geological map 1:500.000. – In: SAID, R. (ed.): The geology of Egypt. 734 S. Rotterdam.
- LIU JIAN GUO & MCMOORE, J. (1989): Colour enhancement and shadow suppression techniques for TM images. Proceed. 7<sup>th</sup> Them. Conf. Remote Sens. Expl. Geol., Calgary, Alberta, 2, 901-915.
- MACH, E. (1883): Die Mechanik in ihrer Entwicklung.
- MALLET, J. L. (1989): Discrete Smoothing Interpolation in Geometric Modeling. ACM-Transactions on Graphics, 8 (2), 121-144.
- MALLET, J. L. (1992): Discrete Smoothing Interpolation. Computer Aided Design Journal, 24 (4), 263-270.
- MALLET, J. L. (2001): Global Constrained Parametrization of Triangulated Surfaces, Patent No. US 6,300,958 B1.
- MARSHALL, L.G., SEMPERE, T. & BUTLER, R.F. (1997): Chronostratigraphy of the mammal-bearing paleocene of south America. Journal of South American Earth Sciences, 10 (1), 49-70.
- MASSON, F., DORBATH, C., MARTINEZ, C. & CARLIER, G. (2000): Local earthquake tomography of the Andes at 20° S: Implications for the structure and building of the mountain range. Journal of South American Earth Sciences, 13 (1-2), 3-19.
- MATHER, P. M. (1999): Computer processing of remotely-sensed images, 2<sup>nd</sup> edn. New York, John Wiley & Sons.
- MCMAHON, M.J. & NORTH, C.P. (1993): 3D integration of remotely sensed geological data: a methodology for petroleum exploration. Exploration, Environment, Engineering. Proc. of 9<sup>th</sup> conference on geologic remote sensing, Pasadena, 1993, S. 221-233.
- MERTMANN, D. & FIEDLER, K. (1997). Sedimentary evolution of the Cretaceous to Palaeocene Potosí Basin (Eastern Cordillera, southern Bolivia).- Memorias del I Congreso Latinoamericano de Sedimentología, Sociedad Venezolana de Geología, II : 95-101, noviembre 1997.
- MERTMANN, D., SCHEUBER, E., EGE, H., SILVA, P., REUTTER, K.-J., SOBEL, E. & JACOBSHAGEN, V. (2001): Tectono-sedimentary evolution of the southern Altiplano: basin evolution, thermochronology and structural geology of southern Bolivia. FU Berlin.

- MORRIS, K.P. (1990): Automatic detection of 3D geological features from remotely sensed imagery and digital terrain models. In: Remote sensing: an operational technology for the mining and petroleum industries. Conference, IMM, London, 1990, (IMM), S. 59-74.
- MUNIER, K. & GONI, P. (2000): Pastos Grandes. Landsat 7 (ETM+) Daten aus den bolivianischen Anden – verbesserte Information durch den panchromatischen Kanal. Photogrammetrie, Fernerkundung, Geoinformation, 2000, 6, 449-450.
- NALBANT, S. S. & ALPTEKIN, Ö. (1995): The use of Landsat Thematic Mapper imagery for analysing lithology and structure of Korucu-Duđla area in Western Turkey. International Journal of Remote Sensing, 16, 2357-2374.
- NASA (1982): Landsat Data User Notes. U.S.Geological Survey/NOAA/Sioux Falls.
- NASA (1984): A prospectus for Thematic Mapper research in the Earth Sciences. NASA Tech. Memo. 86149, 66 S., Goddard Space Flight Center, Greenbelt.
- NASA (1996): Landsat 7 – Science Data Users Handbook. [http://ftpwww.gsfc.nasa.gov/las/handbook/handbook\\_toc.html](http://ftpwww.gsfc.nasa.gov/las/handbook/handbook_toc.html) (12.03.03)
- OTT, N. (2001): GIS-Modellierung und Klassifizierung von geophysikalischen, geologischen und Fernerkundungs-Daten aus den südlichen Red Sea Hills (Sudan). 131 S., Berliner Geowissenschaftliche Abhandlungen, D, 15.
- PCI GEOMATICS (1999): Orthoengine AE Version 6.3, 215 p., Richmond Hill, Ontario.
- PÉREZ-MENDIETA, M. (1963): Estudio geológico del área Sevaruyo-Salar de Uyuni, Prov.Ladislao Cabrera, Oruro.- Tesis de Grado UMSA (# 26), 80 p., 6 lams., La Paz. (GEOBOL-08)
- PEUQUET, D. & MARBLE, D. (1990): Introductory Readings in GIS. London (Taylor & Francis)
- PISOT, N., XAVIER, J.P., MIEGEBIELLE, V., COQUELET, D. & LEYMARIE, P. (1993): Geological study of sedimentary basins using SPOT data. ISPRS – J. of Photogramm. Eng. & Remote Sens. 48 (6), S. 2-15.
- REEVES, R.G. (ed.) (1975): Manual of Remote Sensing, Vol. I: Theory, instruments and techniques 867 S. Falls Church.
- REQUICHA, A.A.G. & VOELCKER, H.B. (1983): Solid modeling: current status and research directions.- IEEE Comp. Graph. Appl., 3, 7, 25-37, Los Alamitos, CA
- REUTTER, K.-J., DÖBEL, R., BOGDANIC, T. & KLEY, J. (1994). Geological Map of the Central Andes between 20-26°S. – In: REUTTER, K.-J., SCHEUBER, E. & WIGGER, P. (Hrg.): Tectonics of the Southern Central Andes.
- REUTTER, K.-J., GIESE, P. GÖTZE, H.-J., SCHEUBER, E., SCHWAB, K., SCHWARZ, G. & WIGGER, P. (1988): Structures and Crustal Development of the Central Andes between 21° and 25° S. - In: BAHLBURG, H., BREITKREUZ, C. & GIESE, P. [Hrsg.]: The Southern Central Andes, Lecture Notes in Earth Sciences, 17: 231-261.
- REYNES, P., ROLET, J., RICHERT, J.P., GRUNEISEN, P., PALENGAT, J.M. & COQUELET, D. (1993): 3D remote sensing techniques as an aid for the research of tilted blocks of the north tanganyika Trough, East African Rift, Zaire. Bulletin Centre de Recherches Exploration Production Elf Aquitaine, 17 (1), S. 1-17.
- RICHTER, D. (1992): Geology and mineral resources of the Altiplano and Cordillera Occidental, Bolivia; with a section on application of economic evaluation to deposit models. - US Geological Survey Bulletin and SERGEOMIN, Bolivia. U.S. Geological Survey, Denver, 365 S.
- SABINS, F. (1997): Remote Sensing, Principles and Interpretation.W.H. Freeman and Company, New York.
- SCHANDA, E. (1986): Physical fundamentals of remote sensing. 187 S.
- SCHEUBER, E. (1994): Tektonische Entwicklung des nordchilenischen aktiven Kontinentalrandes: Der Einfluß von Plattenkonvergenz und Rheologie. - Geotekt. Forsch., 81, 182 S.
- SCHEUBER, E., BOGDANIC, T., JENSEN, A. & REUTTER, K.-J. (1994): Tectonic development of the North Chilean Andes in relation to plate convergence and magmatism since the Jurassic. – In: REUTTER, K.-J., SCHEUBER, E. & WIGGER, P. (Hrg.): Tectonics of the Southern Central Andes. 121-139.

- SCHEUBER, E., CHARRIER, R., GONZALEZ, G., KLOTZ, J., REUTHER, C.D. & REUTTER, K.-J. (2000): Crustal Evolution of the Southern Central Andes (20°S – 26°S) since the Jurassic. *Zeitschrift f. Angew. Geol.*, SH 1, 323-329.
- SEMPERE, T., HÉRAIL, G., OLLER, J. & BONHOMME, M. G. (1990): Late Oligocene - early Miocene major tectonic crisis and related basins in Bolivia.- *Geology*, 18 (10) : 946-949.
- SERVANT, M., FOURNIER, M., ARGOLLO, J., SERVANT-VILDARY, S., SYLVESTRE, F. WIRRMANN, D. & YBERT, J.P. (1995): La dernière transition glaciaire/interglaciaire des Andes tropicales sud (Bolivie) d'après l'étude des variations des niveaux lacustres et des fluctuations glaciaires. *Comptes Rendus de l'Académie des Sciences de Paris*, 320: 729-736.
- SHEFFIELD, C. (1985) : Selecting band combinations from multispectral data. *Photogramm. Eng. Remote Sens.*, 51 (6), 681-687.
- SHREVE, R. L. (1966): Statistical law of stream numbers. *Journal of Geology*, 74, 17-37.
- (1967): Infinite topologically random channel networks. *Journal of Geology*, 75, 178-186.
- SILVA, P. (in prep.): Der südliche Altiplano im Tertiär: Sedimentäre Entwicklung und tektonische Implikationen. Dissertation Freie Universität Berlin.
- SINGH, A. & HARRISON, A. (1985): Standardized principal components. *Int. J. Remote Sens.*, 6 (6), 883-896.
- STACHOWIAK, H. (1973): Allgemeine Modelltheorie. Wien.
- STRAHLER, A. N. (1952): Hypsometric (area-altitude) analysis of erosional topography. *Bulletin of the Geological Society of America*, 63, 1117-1142.
- (1957): Quantitative analysis of watershed geomorphology. *Transactions of the American Geophysical Union*, 38, 913-920.
- (1964): Quantitative geomorphology of drainage basins and channel networks. Section 4-II in CHOW, V. T. (ed.), *Handbook of applied hydrology*. McGraw-Hill Book Co., New York. S. 4-39 bis 4-76.
- SUÁREZ-SORUCO, R. (2000): Compendio de Geología de Bolivia. *Revista Técnica de YPF*, 18 (1-2): 214 S., La Paz.
- TARANIK, J.V. & COSTA, A.P. (1996): Remote sensing for geology and mineral resources, an assessment of tools for geoscientists in the future. *Internat. Arch. Photogramm. Rem. Sens.*, 31, B7, 689-698.
- TARSKI, A. (1954): Contributions to the theory of models I. *Indagationes Mathematicae*, 16, 572-581.
- THOUÉ, F., VIDAL, G. & GRATIER, J.P. (1997): Finite deformation and displacement fields on the southern Yemen margin using satellite images, topographic data and a restoration method. *Tectonophysics*, 281 (3-4), S. 173-193.
- TOMLIN, D. (1990): *Geographic Information Systems and Cartographic Modelling*. Englewood Cliffs (Prentice Hall)
- VAN DIJK, J.P., BELLO, M., TOSCANO, C., BERSANI, A. & NARDON, S. (2000): Tectonic model and 3D fracture network analysis of Monte Alpi (Southern Apennines). *Tectonophysics*, 324 (4), S. 203-237.
- VOLK, P. (1989): Methoden der digitalen Bildverarbeitung und Geographischer Informationssysteme für geologische Anwendungen. *GIS*, 2, 1, 27-35.
- VORONOI, G.F. (1907): Nouvelles applications de paramètres continus á la théorie des formes quadratiques. Premier Mémoire: Sur quelques propriétés des formes quadratiques positives parfaites. *J. Reine Angew. Mathematik*, 133, 97-178.
- VORONOI, G.F. (1908 und 1909): Nouvelles applications de paramètres continus á la théorie des formes quadratiques. Deuxième Mémoire: Recherche sur les paralléloèdres primitifs. *J. Reine Angew. Mathematik*, 134, 198-287 und 136, 67-181.
- WELSINK, H. J., MARTINEZ, E., ARANIBAR, O. & JARANDILLA, J. (1995): Structural inversion of a Cretaceous Rift Basin, Southern Altiplano, Bolivia. In: *Petroleum basins of South America: AAPG Memoir 62*, TANKARD, A., SUAREZ, S., and WELSINK, H., eds. p. 305-324.

- WIGGER, P., SCHMITZ, M., ARANEDA, M., ASCH, G., BALDZUHN, S., GIESE, P., HEINSOHN, W.-D., MARTINEZ, E., RICALDI, E., ROWER, P., VIRAMONTE, J. (1994): Variation in the crustal structure of the Central Andes deduced from seismic refraction investigations. In: REUTTER, K.-J., SCHEUBER, E., WIGGER, P. (Eds.), *Tectonics of the Southern Central Andes*, 23-48.
- WILLIAMS, R. S. (1983): Geological applications. in: *Manual of Remote Sensing*, 2<sup>nd</sup> edn., 2, 1667-1951, R. N. COLWELL (ed.), American Society of Photogrammetry, Falls Church, VA.
- YUAN, X., SOBOLEV, S., KIND, R., ONCKEN, O., BOCK, G., ASCH, G., SCHURR, B., GRAEBER, F., RUDLOFF, A., HANKA, W., WYLEGALLA, K., TIBI, R., HABERLAND, CH., RIETBROCK, A., GIESE, P., WIGGER, P., ROEWER, P., ZANDT, G., BECK, S., WALLACE, T., PARDO, M., & COMTE, D. (2000): Subduction and collision processes in the Central Andes constrained by converted seismic phases. *Nature*, 408, S. 958-961
- ZANDT, G., VELASCO, A. & BECK, S. (1994): Composition and thickness of the southern Altiplano crust, Bolivia. *Geology*, 22, 1003-1006.
- ZERNITZ, E. R. (1932): Drainage patterns and their significance. *Journal of Geology*, 40, 498-521.