

**Dr. Andreas Hirner**

**CURRENT PROJECT WORK**

- CODE-DE, ECOLASS, AGRO-DE, TIMELINE

**CURRENT TASKS**

- Software development and large scale EO data processing

**RESEARCH TOPICS**

- Conception, development and management of operational image processing platforms
- Programming of spatial processing services and analytical tools
- Conception and development of early warning systems

**EDUCATION**

- **Dissertation (PhD)** at the University of Witwatersrand, Johannesburg, South Africa with focus on exploration, 3D Modelling, geostatistics and ore reserve calculation (2002).
- **Diploma degree** in Geology at LMU Munich with focus on economic geology (1996).

**EMPLOYMENT RECORD**

- **03/2014 - present** Research Associate at the German Remote Sensing Data Center (DFD), German Aerospace Center (DLR), Oberpfaffenhofen, Germany.
- **12/2012 - 03/2014** Consultant for geospatial software applications, Munich Germany
- **10/2009 - 10/2012** Research Associate at the Crittech Unit at the IPSC, Joint Research Centre (JRC), Ispra, Italy.
- **09/2003 - 09/2009** Research Associate at the German Remote Sensing Data Center (DFD), German Aerospace Center (DLR), Oberpfaffenhofen, Germany.
- **05/2001 - 09/2003** Software developer for web applications, Munich Germany

**PUBLICATIONS**

Reviewed Journals

- T. Esch, S. Üreyen, J. Zeidler, A. Metz-Marconcini, A. Hirner, H. Asamer, M. Tum, M. Böttcher, S. Kuchar, V. Svaton & M. Marconcini (2018) Exploiting big earth data from space – first experiences with the timescan processing chain, Big Earth Data, 2:1, 36-55, DOI:10.1080/20964471.2018.1433790.
- Esch, T., Heldens, W., Hirner, A., Keil, M., Marconcini, M., Roth, A., Zeidler, J., Dech S., Strano, E. (2017) Breaking new ground in mapping human settlements from space - The Global Urban Footprint. ISPRS Journal of Photogrammetry and Remote Sensing (134), pp. 30-42. Elsevier. DOI: 10.1016/j.isprsjprs.2017.10.012 ISSN 0924-2716
- Poujol, M., M.; Hirner, A.J.; Armstrong, R.A.; Anhaeusser, C.R. (2009) U-Pb SHRIMP data for the Madibe greenstone belt: implications for crustal growth on

the western margin of the Kaapvaal Craton, South Africa. *South Africa Journal of Geology*, vol. 111, no. 1, pp. 67-78

- Tetzlaff, A., Zhukov, B., Hirner, A., Künzer, C., Voigt, S. (2005) Coal fire quantification and detection using the DLR experimental bi-spectral infrared detection (BIRD) small satellite. *Small Satellites for Earth Observation - Selected Proceedings of the 5th International Symposium of the International Academy of Astronautics*, Berlin 4-8, 2005, H.-P. Röser, R. Sandau, A. Valenzuela (eds.), ISBN:3-11-018851-1, V, pp. 255-262.

#### Conferences

- Esch, T., Asamer, H., Balhar, J., Boettcher, M., Boissier, E., Hirner, A., Mathot, ., Marconcini, M., Metz, A., Permana, H., Soukup, T., Üreyen, ., Svaton, V., Zeidler, J. (2017) Monitoring Urbanization with Big Data from Space - The Urban Thematic Exploitation Platform. Conference on Big Data from Space - BiDS'17, 28-30 November 2017, Toulouse, France.
- Olusegun, C.F., Gessner, U., Hirner, A., Salack, S., Forkuor, G., Berger, S., Heinzeller, D., Dieng, D., Sylla, B., Kunstmann, H., Lamers, J.P.A., Tondoh, J. (2017) WASCAL - West African Science Service Center on Climate Change and Adapted Land Use. Subsidiary Body for Scientific and Technological Advice (SBSTA), Ninth meeting of the Research Dialogue, 10.5.2017, Bonn, Deutschland.
- Esch, Thomas; Heldens, Wieke; Hirner, Andreas; Keil, Manfred; Marconcini, Mattia; Roth, Achim; Zeidler, Julian (2015) Global Urban Footprint - A Key Step in Characterizing the Global Human Settlements Pattern from Space. Conference Mapping Urban Areas from Space, 4-5 Nov 2015, Frascati, Italy
- Esch, Thomas; Brito, F.; Marconcini, Mattia; Metz, Annekatrin; Hirner, Andreas; Asamer, Hubert; Böttcher, M.; Storm, T.; Mathot, E.; Soukup, T.; Stanek, F.; Vondrak, V. (2015) TEP Urban – Motivation - Capabilities - Expected Impact. In: Earth Observation Science 2.0 conference. Earth Observation Science 2.0 conference, 12-14 Oct 2015, Frascati, Italy
- Bauer, O; Seitz, R; Einzmann, K; Immitzer, M; Atzberger, C; Schmitt, A; Henning, L; Hirner, A; Müller, A; Forst, M; Kanzian, M. (2015): Entwicklung eines fernerkundungsbasierten Fast-Response-Systems zur Unterstützung der Erfassung von Kalamitäten im Wald. *Der gepixelte Wald – Reloaded*, MAR 17-18, 2015, Freising, Germany
- Fischer, Christian; Schloemer, Stefan; Hirner, Andreas; Teschner, Manfred (2009) Experiences of Coal Fire Detection and Quantification for Resources Management. IGARSS 2009, 12-17 July 2009, Cape Town, South Africa.

#### Book Contributions

- Esch T., Heldens, W., and Hirner, A. (2018): The Global Urban Footprint, in Weng, Q., Quattrochi, D., Gamba, P. E., ed., 'Urban Remote Sensing, Second Edition', Taylor & Francis, pp. 1-12. ISBN 9781138054608
- Künzer, C., Zhang, J., Hirner, A., Bo, Y., Jia, Y., Sun, Y. (2008) Multitemporal in-situ mapping of the Wuda coal fires from 2000 to 2005 – assessing coal fire dynamics. In: ERSEC ecological book series, Vol. 4. Tsinghua University press and Springer. pp. 132-148. ISBN 978-7-302-17140-9

#### PhD thesis

- Hirner, A. (2002): 'Geology and gold mineralization of the Madibe Greenstone Belt, eastern part of the Kraaipan Terrain, Kaapvaal Craton, South Africa'. PhD thesis, University of the Witwatersrand, Johannesburg, South Africa.