

Martin Schlerf

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Date of birth: 23.06.1972

PROFESSIONAL CAREER

- Since 2015 Senior R&D Associate in Remote Sensing of Natural Resources, Environmental Research and Innovation Department, LIST
- 2011-2014 Project Leader in Remote Sensing, EVA Department, CRP-Gabriel Lippmann, Belvaux, Luxembourg
- 2006-2011 Assistant Professor in Earth Observation and Geo-Information for Natural Resources, University of Twente, ITC Faculty, Enschede, The Netherlands
- 2003-2006 Scientist at the Chair of Remote Sensing, Faculty of Geography/Geosciences, University of Trier, Germany
- 2003-2006 Scientist in the DFG-funded collaborative interdisciplinary research project “Umwelt und Region”, University of Trier, Germany

EDUCATION AND TRAINING

- 2005 PhD in Remote Sensing (Dr. rer. nat.), degree: summa cum laude, Trier University
- 2000 Master in Geoinformation Science and Earth Observation, ITC, Enschede, The Netherlands
- 1999 Diplom-Geograph (equivalent to a 5-year MSc in Physical Geography), Justus Liebig University Giessen, Germany
- 1996 Diploma in Arctic Studies, University of Lapland, Rovaniemi, Finland

MOST RELEVANT PUBLICATIONS (Times Cited (TC) and impact factor 2014 (IF): WoS)

- Schlerf, M., Atzberger, C., & Hill, J. (2005).** Remote sensing of forest biophysical variables using HyMap imaging spectrometer data. *Remote Sens. Environ.*, 95(2), 177-194. **TC: 123, IF: 6.4**
- Darvishzadeh, R., Skidmore, A., **Schlerf, M.**, et al. (2008). LAI and chlorophyll estimation for a heterogeneous grassland using hyperspectral measurements. *ISPRS-J. Photogramm. Remote Sens.*, 63(4), 409-426. **TC: 124, IF: 3.1**
- Darvishzadeh, R., Skidmore, A., **Schlerf, M.**, et al. (2008). Inversion of a radiative transfer model for estimating vegetation LAI and Chl in a heterogeneous grassland. *Remote Sens. Environ.*, 112(5), 2592-2604. **TC: 114, IF: 6.4**
- Schlerf, M., & Atzberger, C. (2006).** Inversion of a forest reflectance model to estimate structural canopy variables from hyperspectral remote sensing data. *Remote Sens. Environ.*, 100(3), 281-294. **TC: 96, IF: 6.4**
- Schlerf, M., et al. (2010).** Retrieval of chlorophyll and nitrogen in Norway spruce (*Picea abies* L. Karst.) using imaging spectroscopy. *Int. J. Appl. Earth Obs. Geoinf.*, 12(1), 17-26. **TC: 50, IF: 3.5**
- Ramoelo, A., Skidmore, A. K., Cho, M. A., **Schlerf, M.**, et al. (2012). Regional estimation of savanna grass nitrogen using the red-edge band of the RapidEye sensor. *Int. J. Appl. Earth Obs. Geoinf.*, 19, 151-162. **TC: 26, IF: 3.5**
- Schlerf, M., & Atzberger, C. (2012).** Vegetation Structure Retrieval in Beech and Spruce Forests Using Spectrodirectional Satellite Data. *IEEE J. Sel. Top. Appl. Earth Observ. Remote Sens.*, 5(1), 8-17. **TC: 16, IF: 3.0**
- Ullah, S., **Schlerf, M.**, Skidmore, A. K., & Hecker, C. (2012). Identifying plant species using mid-wave infrared (2.5-6 μ m) and thermal infrared (8-14 μ m) emissivity spectra. *Remote Sens. Environ.*, 118, 95-102. **TC: 18, IF: 6.4**
- Si, Y. L., **Schlerf, M.**, Zurita-Milla, R., et al. (2012). Mapping spatio-temporal variation of grassland quantity and quality using MERIS data and the PROSAIL model. *Remote Sens. Environ.*, 121, 415-425. **TC: 13, IF: 6.4**
- Carvalho, S., Macel, M., **Schlerf, M.**, Skidmore, A. K., & van der Putten, W. H. (2012). Soil biotic impact on plant species shoot chemistry and hyperspectral reflectance patterns. *New Phytologist*, 196(4). **TC: 4, IF: 7.8**

MOST RECENT PUBLICATIONS (H-index (WoS) : 14, total number of publications: 44)

- Alvarez-Taboada, F., Tammadge, D., **Schlerf, M.**, & Skidmore, A. (2015). Assessing MODIS GPP in Non-Forested Biomes in Water Limited Areas Using EC Tower Data. *Remote Sens.*, 7(3), 3274-3292.
- Fauzi, A., Skidmore, A. K., Heitkonig, I. M. A., van Gils, H., & **Schlerf, M.** (2014). Eutrophication of mangroves linked to depletion of foliar and soil base cations. *Environm. Monit. Assessm.*, 186(12), 8487-8498.
- Machwitz, M., Giustarini, L., Bossung, C., Frantz, D., **Schlerf, M.**, . . . Udelhoven, T. (2014). Enhanced biomass prediction by assimilating satellite data into a crop growth model. *Environm. Model. Softw.*, 62, 437-453.
- Carvalho, S., **Schlerf, M.**, et al. (2013). Hyperspectral reflectance of leaves and flowers of an outbreak species discriminates season and successional stage of vegetation. *Int. J. Appl. Earth Obs. Geoinf.*, 24, 32-41.

- Fauzi, A., Skidmore, A. K., van Gils, H., **Schlerf**, M., & Heitkonig, I. M. A. (2013). Shrimp pond effluent dominates foliar nitrogen in disturbed mangroves as mapped using hyperspectral imagery. *Marine Pollut. Bul.*, 76(1-2), 42-51.
- Girma, A., Skidmore, A. K., de Bie, C., Bongers, F., & **Schlerf**, M. (2013). Photosynthetic bark: Use of chlorophyll absorption continuum index to estimate *Boswellia papyrifera* bark chlorophyll content. *Int. J. Appl. Earth Obs. Geoinf.*, 23, 71-80
- Ramoelo, A., Skidmore, A. K., **Schlerf**, et al. (2013). Savanna grass nitrogen to phosphorous ratio estimation using field and imaging spectroscopy. *Int. J. Appl. Earth Obs. Geoinf.*, 23, 334-343.
- Udelhoven, T., Delfosse, P., Bossung, C., Ronellenfitch, F., Mayer, F., **Schlerf**, M., et al. (2013). Retrieving the Bioenergy Potential from Maize Crops Using Hyperspectral Remote Sensing. *Remote Sens.*, 5(1), 254-273.
- Ullah, S., Skidmore, A. K., Groen, T. A., & **Schlerf**, M. (2013). Evaluation of three proposed indices for the retrieval of leaf water content from the mid-wave infrared (2-6 μ m) spectra. *Agricult. For. Meteorol.*, 171, 65-71.

PRIZES AND AWARDS

- 2003 Best poster award 'EARSeL Workshop on Imaging Spectroscopy', Herrsching, Germany
- 2009 Admission to tenure track program, University of Twente, ITC Faculty, The Netherlands

EDITORIAL RESPONSIBILITIES

- Since 2014 Associate Editor, '*European Journal of Remote Sensing*', published by Assoc. Italiana Telerilevamento, Firenze, Italy, IF=1.4

MEMBERSHIP IN PHD JURIES

- Mónica Pérez Sáiz (2014): 'Acquisition and analysis of images taken from an Unmanned Aerial Vehicle for Site-Specific Crop Management in Precision Agriculture', Universidad de Almería, Spain, Evaluator
- Sabrina de Carvalho (2013): 'Studying of biochemical and biophysical properties of *Senecio* and *Jacobaea* species: is there a link to invasiveness?', Wageningen UR, The Netherlands, Co-Promotor
- Saleem Ullah (2013): 'Thermal Plants: Characterizing vegetation parameters using mid to thermal infrared hyperspectral remote sensing', University of Twente, The Netherlands, Assistant Promotor
- Meng Bian (2013): 'Assessing the quality of tea by hyperspectral techniques', University of Twente, The Netherlands, Assistant Promotor
- Abel Ramoelo (2012): 'Savanna grass quality: remote sensing estimation from local to regional scale', University of Twente, The Netherlands, Assistant Promotor

REVIEW ACTIVITIES FOR FUNDING AGENCIES

Nederlandse organisatie voor internationalisering in het hoger onderwijs (NUFFIC), The Netherlands; Belgian Science Policy Office (BELSPO), Belgium; Research Foundation – Flanders (RFF), Belgium; Research School for Socio-Economic and Natural Sciences of the Environment (SENSE), The Netherlands

KEY RESEARCH PROJECTS THAT RECEIVED THIRD-PARTY FUNDING

CAOS-2 'From Catchments as Organised Systems to Models based on Dynamic Functional Units – Sub-project C: Understanding and characterizing land surface-atmosphere exchange and feedbacks', co-applicant, budget: 506k EUR

HIWET 'High-resolution modelling and monitoring of water and energy transfers in wetland ecosystems', 2014-2018, funded by BELSPO and FNR, co-applicant, budget: 495k EUR

PLANTSSENS 'Detection of plant stress using advanced thermal and spectral remote sensing techniques for improved crop management', 2014-2017, funded by FNR, coordinator, budget: 548k EUR

AFR grant 'Airborne hyperspectral long-wave infrared imaging spectroscopy for plant stress detection', 2012 – 2015, funded by FNR, co-applicant, budget: 200k EUR

SENSA 'Sustainable, Environmental & Safe tourism in protected areas', 2013-2016, funded by ESA, co-applicant, budget: 183k EUR

Landcover-CCI CCN-4 'Validation of the SAR-based CCI water bodies' product, 2013-2014, funded by ESA, coordinator, budget: 100k EUR

Bioscope-2, 'Development of methods and indices to detect pests, diseases, nutrient and water stress for high-value crops by combining hyperspectral UAV and satellite data', 2015-2017, funded by ESA, budget: 176k EUR