

# **Ausgewählte Publikationen**

## **Querschnittsthema Fernerkundungsmethodik**

(Stand 06/2010)

### **Peer-reviewed journals:**

Martinis, Sandro; Twele, André; Voigt, Stefan, 2010: Unsupervised extraction of flood-induced backscatter changes in SAR data using Markov image modeling on irregular graphs, *IEEE Transactions on Geoscience and Remote Sensing*, 48 (12).

Martinis, Sandro; Twele, André: A hierarchical spatio-temporal Markov model for improved flood mapping in multi-temporal X-Band SAR data, *Remote Sensing*, submitted.

Martinis, Sandro; Twele, André; Voigt, Stefan, 2009: Towards operational near real-time flood detection using a split-based automatic thresholding procedure on high resolution TerraSAR-X data. *Natural Hazards and Earth System Sciences (NHES)*, 9, 303-314.  
<http://www.nat-hazards-earth-syst-sci.net/9/303/2009/nhess-9-303-2009.pdf>

Zwenzner, Hendrik; Voigt, Stefan, 2009: Improved estimation of flood parameters by combining space based SAR data with very high resolution digital elevation data. *Hydrology and Earth System Sciences (HESS)*, 13, 567-576.  
<http://www.hydrol-earth-syst-sci.net/13/567/2009/hess-13-567-2009.pdf>

### **Book chapters:**

Hahmann, Thomas; Twele, André; Martinis, Sandro; Buchroithner, Manfred (2009): Strategies for the automatic extraction of water bodies from TerraSAR-X / TanDEM-X data. In: *Geoinformation and Cartography for early warning and crisis response*. Springer-Verlag.

### **Conference papers and Presentations:**

Martinis, Sandro; Twele, André: Automatic detection of inundation-related change areas in TerraSAR-X data using Markov image modeling on irregular graphs, *Geophysical Research Abstracts*, EGU General Assembly 2010, Wien, Austria.

Hahmann, Thomas; Martinis, Sandro; Twele, André; Buchroithner, Manfred, 2009: Strategies for the automatic mapping of flooded areas and other water bodies from high resolution TerraSAR-X data. In: Konecny, Milan; Zlatanova, Sisi; Bandrova, Temenoujka; Friedmannova, Lucie [Hrsg.]: *Cartography and Geoinformatics for Early Warning and Emergency Management: Towards Better Solutions*, Masaryk University, Brno, S. 207 - 214, Joint Symposium of ICA Working Group on CEWaCM and JBGIS Gi4DM "Cartography and Geoinformatics for Early Warning and Emergency Management: Towards Better Solutions", Prague, Czech Republic, 2009-01-19 - 2009-01-22, ISBN 978-80-210-4796-9.  
[http://elib.dlr.de/57931/1/Hahmann\\_2009\\_Prague\\_pp-207-214s.pdf](http://elib.dlr.de/57931/1/Hahmann_2009_Prague_pp-207-214s.pdf)

Voigt, Stefan; Martinis, Sandro; Zwenzner, Hendrik; Hahmann, Thomas; Twele, André; Schneiderhan, Tobias, 2008: Extraction of Flood Masks Using Satellite Based Very High Resolution SAR Data for Flood Management and Modeling. In: Simonovic, Slobodan; Gourget, Paul; Blanchard, Stephen [Hrsg.]: Proceedings of the 4th International Symposium on Flood Defence, Managing Flood Risk, Reliability & Vulnerability, Toronto, Canada, 2008-05-06 - 2008-05-08.

<http://www.ifi-home.info/isfd4/sessions.html>

Voigt, Stefan; Schneiderhan, Tobias; Zwenzner, Hendrik; Gähler, Monika; Twele, André 2008: Improving operational Flood Assessment - Where Satellites make the Difference. In: EGU [Hrsg.]: Geophysical Research Abstracts, EGU General Assembly 2008, Wien, Austria, 2008-04-19 - 2008-04-24, ISSN 1029-7006.

<http://www.cosis.net/abstracts/EGU2008/06038/EGU2008-A-06038.pdf?PHPSESSID=ca0345a1fe28ff3fdbc8d1fdb4abe480>

Hahmann, Thomas; Martinis, Sandro; Twele, André; Roth, Achim; Buchroithner, Manfred (2008): Extraction of water and flood areas from SAR data. In: ITG/VDE [Hrsg.]: 7th European Conference on Synthetic Aperture Radar (EUSAR), VDE VERLAG GMBH, S. 177 - 180, 7th European Conference on Synthetic Aperture Radar (EUSAR), Friedrichshafen (Germany), 2008-06-02 - 2008-06-05, ISBN 978-3-8007-3084-1.

<http://elib.dlr.de/57028/>

Hahmann, Thomas; Roth, Achim; Martinis, Sandro; Twele, André; Gruber, Astrid (2008): Automatic Extraction of Water Bodies from TerraSAR-X Data. In: IEEE International Geoscience and Remote Sensing Symposium (IGARSS) 2008, Boston (USA), 2008-07-06-2008-07-11.

[http://elib.dlr.de/57031/1/Hahmann\\_IGARSS2008\\_final.pdf](http://elib.dlr.de/57031/1/Hahmann_IGARSS2008_final.pdf)