

Curriculum Vitae

Proposed Position in the Project:

- 1 Family Name:** TIMMERMANS
2 First Name: Wilhelmus
3 Date of Birth: 27 April 1968
4 Nationality: Dutch
5 Civil Status: Single

6 Education / Professional Studies:

Institution: Jacobus-College, Enschede
Date From/To: 1980-1986
Degree/Diploma: VWO, Athenaeum B

Institution: Delft University of Technology, Faculty of Civil Engineering, section Hydrology
Date From/To: 1986-1995
Degree/Diploma: ir, M.Sc.

7 Language Skills: (Mark from 1 (notions) to 5 (excellent) for competence) (* = mother tongue)

<u>Language</u>	<u>Speaking</u>	<u>Reading</u>	<u>Writing</u>
Dutch	*	*	*
English	5	5	5
German	4	5	5
French	2	3	3
Spanish	3	3	3
Italian	1	1	

8 Membership of Professional Bodies:

AGU, SPIE, IAHS

9 Other Skills:

Driving license: B

10 Present Position within the organisation:

Researcher

11 Years with the organisation: 16

12 Key Qualifications:

Remote Sensing and Hydrology

13 Experience in specific Asian / EU countries :

- Country : China
Date : October 2009
Details: Installation of an Earth Observation site at the Chinese Academy of Sciences (CAS) operated Mt. Everest site, Tibet. Research mission under the EU funded CEOP-AEGIS project.
- Country : France
Date : October - November 2007
Details: Research oriented mission to implement a coupled atmospheric boundary layer model and remote sensing based land-atmosphere model over the Alpilles area (France) to study multi-scale feedback effects and lateral (advection) exchanges at the Bioclimatology Department of the Institut National de la Reserche Agronomique (INRA), Avignon, France. Co-financed by INRA-Avignon, France.
- Country : The Netherlands
Date : October 2007
Details: Organising the AGRISAR and EAGLE Campaigns Final Workshop at ESA-ESTEC in Noordwijk, The Netherlands. The purpose of the meeting was to fulfil the contractual obligation of the EU funded EAGLE project and to report on the impact of Sentinel-1 and Sentinel-2 sensor and mission characteristics for land applications.
- Country : The Netherlands
Date : February 2007
Details: Organising the EAGLE Campaign Mid-term Workshop at ITC in Enschede, The Netherlands. The purpose of the meeting was to fulfil the contractual obligation of the EU funded EAGLE project and to report on the project progress.
- Country : Germany
Date : July 2006
Details: Fieldwork to support development of biophysical parameter retrieval algorithms for surface energy budget models using large aperture scintillometer and directional radiation measurements. Multi-disciplinary research mission at the Demmin test site under the ESA funded AgriSAR Campaign.
- Country : The Netherlands
Date : May - June 2006
Details: Coordinating and organising the ESA funded EAGLE2006 Experiment; A Multi-purpose, Multi-Angle and Multi-sensor In-situ, Airborne and Space Borne Campaign over Grassland and Forest for the investigation and validation of the retrieval of bio-geophysical parameters, obtained at different radar frequencies (X-, C- and L-Band) and at hyperspectral optical and thermal wavelengths.
- Country : The Netherlands
Date : June 2006
Details: Fieldwork to validate retrieval algorithms based on radar (X-, C- and L-Band), hyperspectral optical and thermal frequencies for land-atmosphere interaction models using large aperture scintillometry. Multi-disciplinary research mission at the KNMI-Cabauw test site under the ESA funded EAGLE2006 Experiment.

Country : Spain
Date : July 2005
Details: Fieldwork to validate retrieval algorithms based on hyperspectral and fluorescence signals for turbulent exchange models using large aperture scintillometer and eddy covariance measurements. Multi-disciplinary research mission at the Barrax test site under the ESA funded SENTinel-2 and FLuorescence EXperiment (SEN2FLEX).

Country : United States of America
Date : April 2005
Details: Research oriented mission to couple a Large Eddy Simulation (LES) model to a remote sensing based land-atmosphere model at the Pratt School of Civil and Environmental Engineering, Duke University. Co-financed by Duke University, Durham, NC, USA

Country: Spain
Date: July 2004
Details: Fieldwork for validation of remote sensing based turbulent flux exchange models using scintillometry. Multi-disciplinary research mission carried out in the BARRAX validation site under the ESA funded SPARC2004 campaign. Financed by Wageningen University and Research Centre, ALTErrA, The Netherlands, by means of the EC 6th Framework funded project "EAGLE" (FP-6 2002-SPACE-1).

Country : United States of America
Date : March – June 2003
Details: Research oriented mission to develop remote sensing based Soil-Vegetation-Atmosphere-Transfer schemes for land surface energy balance modeling. Co-financed by USDA-ARS Hydrology and Remote Sensing Laboratory, Beltsville, MD, USA

Country : Botswana
Date : Several missions in April, July 2001, November 2002
Details: Fieldwork to assess hydro-meteorological mapping in Eastern (Serowe) and Northern (Okavango delta) Botswana. Financed by Dept. of Geological Services, Lobatse, Botswana.

Country : Iran
Date : August 1999, March 2002
Details: Training on hydrological modeling in a GIS environment at the Soil Conservation and Watershed Management Research Center, Tehran. Two weeks training in the context of the SCWMRC – ITC joint educational MSc program

Country : Botswana
Date : Several missions in February & August 2000, April & July 2001
Details: Fieldwork survey to assess actual evapotranspiration mapping in Southern Botswana. Financed by Water Resources Services, Gaborone, Botswana

Country : Yemen
Date : Several missions - March 2000, March 2001
Details: Training on advanced GIS modeling at the Water & Environment Center (WEC), Sana'a University, Sana'a. Training in the context of the SUS III – IHE / ITC Sail Project.

Country : Yemen

Date : Several missions - March 2000, July 2000, November 2000, March 2001

Details: Fieldwork survey to assess cropping and irrigation water use mapping in the Sana'a Basin in the context of the Sana'a Basin Water Management Project (IHE / NWRA / ITC Project). Financed by the World Bank, Washington DC, USA

Country : Spain

Date : Several missions in June & September 2000

Details: Staff development; Spanish language course, Salamanca, Spain

Country : Bangladesh

Period: Several missions – December 1998, November 1999

Details: Executing and organizing a refresher course in Natural Resource Management on a national and local level, using GIS and RS techniques, Intake I and Intake II. A two weeks intensive training of over twenty ITC alumni, both from Bangladesh and the SE Asian region. Sponsored by the Federation of International Education, DGIS, The Netherlands

Country : Botswana

Date : Several missions in April 1998, August 1998, April 1999, July 1999

Details: Fieldwork survey to assess actual evapotranspiration mapping in Eastern and Western Botswana. Financed by Wellfieds Consulting Services, Gaborone, Botswana.

Country : Botswana

Date : Several missions - August 1999, August 2000, September 2001 & 2002

Details: MSc fieldwork supervision focusing on groundwater recharge and actual evapotranspiration in Eastern and Western Botswana, Master of Science course "Water Resources Surveys".

Country : The Netherlands

Date : May 1998

Details: Training course on GIS/RS in the ILRI, GEO-7 special GIS/RS framework at WRS, ITC.

Country : Iran

Date : September 1997

Details: MSc fieldwork supervision focusing on groundwater recharge in a coastal area, Master of Science course "Water Resources Surveys".

Country : Brasil

Date : Several missions in May, June-July 1997

Details: Fieldwork survey to assess a geo-hydrological mapping of Rondonia state, Brasil. Framework of the Second Approximation of the Socio-Economic-Ecological Zoning of the State of Rondonia, financed by DHV Consulting Services, Amersfoort, The Netherlands

Country : Kenia

Date : Mission - April 1997

Details: Training course on Remote Sensing, GIS and Cartography at the Ministry of Water Resources, WRAP-V, Nairobi, Kenia. Sponsored by DHV Consulting Services, Amersfoort, The Netherlands

Country : Yemen

Date : Several missions, August 1996, October-November 1996

Details: Flood hazard and damage assessment of the floods in Central Yemen of June 1996. Aerial survey for post flood aerial data collection, field survey to collect hydraulic parameters for the hazard assessment, damage observations and aerospace imagery field verification. Presentation of the results to high level politicians. Financed by Ministry of Development Co-operation, DGIS, The Netherlands

Country : Indonesia

Date : November - December 1995

Details: Field survey NW Indonesia (Bay of Banten, Java) to develop a data base to support Integrated Coastal Zone Development. Research sponsored by the Dutch Foundation for Scientific Research and the Netherlands Foundation for the Advancement of Tropical Research, NWO-WOTRO

Country : The Netherlands

Date : September 1995

Details: Advanced European training course on marine applications. Organised by GOA and ITC.

Country : Spain

Date : May 1993, 1994

Details: Fieldwork guidance postgraduate and MSc-courses "Water Resources Surveys".

14 Professional Experience Record:

Date: 2010-to date

Location: Enschede, the Netherlands

Organisation: University of Twente, Faculty of Geo-Information Science and Earth Observation, Dept. of Water Resources

Position: Researcher in remote sensing based monitoring and management of hydrological processes

Responsibilities: Develop and implement research (knowledge generation) in RS-based monitoring and assessment of water resources, with emphasis on satellite based assessment of the water and related biogeochemical cycle components;
Knowledge exchange through communication of research findings in scientific journals, international platforms;
Knowledge transfer i.e., translation of research findings into operational working methods for integrated water resource management, including transfer to ITC scientific staff and education programs;
Education and advisory project services in the above fields;
Other tasks within the department

Date: 2003-2010

Location: Enschede, the Netherlands

Organisation: International Institute for Geo-Information Earth Observation (ITC)

Position: Researcher in remote sensing based monitoring and management of hydrological processes

Responsibilities: Develop and implement research (knowledge generation) in RS-

based monitoring and assessment of water resources, with emphasis on satellite based assessment of the water and related biogeochemical cycle components;
 Knowledge exchange through communication of research findings in scientific journals, international platforms;
 Knowledge transfer i.e., translation of research findings into operational working methods for integrated water resource management, including transfer to ITC scientific staff and education programs;
 Education and advisory project services in the above fields;
 Other tasks within the department

Date: 1996-2003
 Location: Enschede, the Netherlands
 Organisation: International Institute for Geo-Information Earth Observation (ITC)
 Position: Researcher
 Responsibilities: Research in the fields of hydrology, remote sensing and GIS.
 Conduct consultancy in the fields of hydrology, remote sensing and GIS.
 Lecturing in GIS and remote sensing for water resources management.

Date: 1995-1996
 Location: Enschede, the Netherlands
 Organisation: International Institute for Geo-Information Earth Observation (ITC)
 Position: Researcher
 Responsibilities: Set-up of basic framework for a Decision support System and design specifications for a GIS and database on coastal Zone Management in Banten Bay, Indonesia
 Inventory of existing GIS configurations, databases, and data networks in Indonesia
 Data collection and filling a GIS, partly in Indonesia and partly in the Netherlands
 Preparation of training modules on coastal changes for UNESCO-BILKO software

Date: 1994-1995
 Location: Enschede, the Netherlands
 Organisation: International Institute for Geo-Information Earth Observation (ITC)
 Position: Research assistant
 Responsibilities: Research in the field of hydrology, climatology and physiographic zoning.
 Development of a spatial and temporal evapotranspiration modelling system.
 Research included land cover and geo-hydrological mapping, related to image interpretation.
 Work involved interpretation of multi-temporal thermal NOAA-VHRR and METEOSAT imagery and the development of a computer simulation model.
 Assistance and guidance of M.Sc. students of water resources surveys division.
 Work included a one month survey on thermal inertia and moisture monitoring and energy flux determination in Spain.

Completion of ir-thesis

Date: 1992-1994
Location: Enschede, the Netherlands
Organisation: International Institute for Geo-Information Earth Observation (ITC)
Position: Trainee
Responsibilities: Research into the application of remote sensing techniques and GIS based modelling for the quantification of hydrological parameters.
Data collection during 5 weeks in Spain.
Thesis on remote sensing evapotranspiration

15 Publications:

- 2010 - **Timmermans, W.J.**, Jiménez-Muñoz, J.C., Hidalgo, V., Richter, K., Sobrino, J.A., d'Urso, G., De Lathauwer, E., Pauwels, V.R.N., "Estimation of the spatially distributed surface energy budget for AgriSAR 2006: - Part I: Remote sensing model intercomparison." JSTARS-IEEE, 2009, (In review).
- 2010 - De Lathauwer, E., **Timmermans, W.J.**, Satalino, G., Mattia, F., Loew, A., Pauwels, V.R.N., "Estimation of the spatially distributed surface energy budget for AgriSAR 2006, Part II: Integration of remote sensing and hydrologic modeling." JSTARS-IEEE, 2009, (In review).
- 2010 - **Timmermans, W.J.**, Kustas, W.P., Gieske, A.S.M., "DATTUTDUT: Operational Monitoring of Water and Heat Fluxes." Journal of Hydrology (In Review).
- 2009 - E. De Lathauwer, **W.J. Timmermans**, G. Satalino, F. Mattia, A. Loew, J.-C. Jimenez-Munoz, V. Hidalgo, J.A. Sobrino, V.R.N. Pauwels, "Estimation of the spatially distributed surface energy budget for AgriSAR 2006: Integration of remote sensing and hydrologic modeling." Eos Trans. AGU, Fall. Meet. Suppl. Abstract, San Francisco, California, USA. 14-18 December 2009.
- 2009 - **Timmermans, W.J.**, Su, Z., Olioso, A., "Footprint issues in scintillometry over heterogeneous landscapes." Hydrology and Earth System Sciences, Vol. 13, pp 2179-2190, 2009. Imp. Fac.: 2.167 (2008)
- 2009 - Richter, K., **Timmermans, W.J.**, "Physical based retrieval of crop characteristics for improved water use estimates." Hydrology and Earth System Sciences, Vol. 13, pp 663-674, 2009. Imp. Fac.: 2.167 (2008)
- 2009 - J.A. Sobrino, J.C. Jimenez-Munoz, P.J. Zarco-Tejada, G. Sepulcre Canto, E. de Miguel, G. Soria, M. Romaguera, Y. Julien, J. Cuenca, V. Hidalgo, B. Franch, C. Mattar, L. Morales, A. Gillespie, D. Sabol, L. Balick, Z. Su, L. Jia, A.S.M. Gieske, **W.J. Timmermans**, A. Olioso, F. Nerry, L. Guanter, J. Moreno, and Q. Shen, "Thermal remote sensing from Airborne Hyperspectral Scanner data in the framework of the SPARC and SEN2FLEX projects: An overview." Hydrology and Earth System Sciences, Vol. 13, pp 2031-2037, 2009. Imp. Fac.: 2.167 (2008)
- 2009 - Su, Z., **W.J. Timmermans**, C. van der Tol, R.J.J. Dost, R. Bianchi, J.A. Gómez, A. House, I. Hajnsek, M. Menenti, V. Magliulo, M. Esposito, R. Haarbrink, F. Bosveld, R. Rothe, H.K. Baltink, Z. Vekerdy, J.A. Sobrino, J. Timmermans, P. van Laake, S. Salama, H. van der Kwast, E. Claassen, A. Stolk, L. Jia, E. Moors, O. Hartogensis, A. Gillespie, "EAGLE 2006 – Multi-purpose, multi-angle and multi-sensor in-situ and airborne campaigns over grassland and forest" Hydrology and Earth System Sciences, Vol. 13, pp 833-845, 2009. Imp. Fac.: 2.167 (2008)
- 2009 - Van der Kwast, J., **Timmermans, W.J.**, Gieske, A.S.M., Su, Z., Olioso, A., Jia, L., Elbers, J., "Validation of the Surface Energy Balance System (SEBS) using ASTER imagery at the SPARC 2004 site (Barrax, Spain)." Hydrology and Earth System Sciences, Vol. 13, pp 1337-1347, 2009. Imp. Fac.: 2.167 (2008).

- 2008 - Mattia, F., G. Satalino, V.R.N. Pauwels, A. Löw, **W.J. Timmermans**, "Soil moisture retrieval from L-band SAR data and hydrological modelling." General Assembly, European Geosciences Union, 13 – 18 April 2008, Vienna, Austria. Geophysical Research Abstracts, Vol. 10, EGU2008-A-00000, 2008.
- 2008 - **Timmermans, W.J.**, Giacomo Bertoldi, John D. Albertson, Albert Olioso, Zhongbo Su, Ambro S.M. Gieske "Accounting for Atmospheric Boundary Layer variability on flux estimation from remote sensing observations." International Journal of Remote Sensing, Vol. 29 (17), 2008, pp 5275 - 5290. doi:10.1080/01431160802036383. Imp. Fac.: 0.987 (2007)
- 2008 - Pauwels, V., **Timmermans, W.J.**, Löw, A., "Comparison of the estimated water and energy budgets of a large winter wheat field during AgriSAR 2006 by multiple sensors and models." Journal of Hydrology 349(3-4), 425-440. doi:10.1016/j.jhydrol.2007.11.016. Imp. Fac.: 2.161 (2007)
- 2008 - Su, Z., **Timmermans, W.J.**, Gieske, A.S.M., Jia, L., Elbers, J.A., Olioso, A., Timmermans, J., Van der Velde, R., Jin, X., Van der Kwast, H., Sabol, D., Sobrino, J.A., Moreno, J., Bianchi, R., "Quantification of land-atmosphere exchanges of water, energy and carbon dioxide in space and time over the heterogeneous Barrax site." International Journal of Remote Sensing, Vol. 29 (17), 2008, pp 5215 - 5235. doi:10.1080/01431160802326099. Imp. Fac.: 0.987 (2007)
- 2008 - Su, Z., **W.J. Timmermans**, R.J.J. Dost, R. Bianchi, J.A. Gómez, A. House, I. Hajnsek, M. Menenti, V. Magliulo, M. Esposito, R. Haarbrink, F. Bosveld, R. Rothe, H.K. Baltink, Z. Vekerdy, J.A. Sobrino, C. van der Tol, J. Timmermans, P. van Laake, S. Salama, H. van der Kwast, E. Claassen, A. Stolk, L. Jia, E. Moors, O. Hartogensis, A. Gillespie, "EAGLE 2006 – Multi-purpose, multi-angle and multi-sensor in-situ and airborne campaigns over grassland and forest" ESA Proceedings WPP-279, AgriSAR and EAGLE Final Workshop, ESA-ESTEC Noordwijk, 15-16 October 2007, The Netherlands.
- 2008 - **Timmermans, W.J.**, R.J.J. Dost, J. Timmermans, K. Weligepolage, A.H.B. Blenke, "Energy budget from large aperture scintillometry during AgriSAR2006" ESA Proceedings WPP-279, AgriSAR and EAGLE Final Workshop, ESA-ESTEC Noordwijk, 15-16 October 2007, The Netherlands.
- 2008 - **Timmermans, W.J.**, J.C. Jiménez-Muñoz, G. Fernandez, V.R.N. Pauwels, A. Löw, J.A. Sobrino, "Water and energy budget from airborne optical imagery during AgriSAR2006" ESA Proceedings WPP-279, AgriSAR and EAGLE Final Workshop, ESA-ESTEC Noordwijk, 15-16 October 2007, The Netherlands.
- 2008 - Pauwels, V., **Timmermans, W.J.**, Löw, A., "Comparison of the estimated water and energy budgets of a large winter wheat field during AgriSAR 2006 by multiple sensors and models" ESA Proceedings WPP-279, AgriSAR and EAGLE Final Workshop, ESA-ESTEC Noordwijk, 15-16 October 2007, The Netherlands.
- 2008 - Hajnsek, I., R. Bianchi, M. Davidson, G. D'Urso, J.A. Gomez-Sanchez, A. Hausold, R. Horn, J. Howse, A. Löw, J.M. Lopez-Sanchez, R. Ludwig, J.A. Martinez-Lozano, F. Mattia, E. de Miguel, J. Moreno, V.R.N. Pauwels, T. Ruhtz, Ch. Schmullius, H. Skriver, J.A. Sobrino, **W.J. Timmermans**, C. Wloczyk, M. Wooding, "AGRISAR 2007 - Airborne SAR and Optics Campaigns for an improved monitoring of agricultural processes and practices" ESA Proceedings

WPP-279, AgriSAR and EAGLE Final Workshop, ESA-ESTEC Noordwijk, 15-16 October 2007, The Netherlands.

- 2008 - Van der Kwast, J., **Timmermans, W.J.**, De Jong, S., "Comparison of MODIS and ASTER derived surface temperatures and energy fluxes at different resolutions." ISPRS Journal of Photogrammetry & Remote Sensing (In Prep.).
- 2007 - **Timmermans, W.J.**, Kustas, W.P., Anderson, M.C., French, A.N. "An Intercomparison of the Surface Energy Balance Algorithm for Land (SEBAL) and the Two-Source Energy Balance (TSEB) Modeling Schemes." Remote Sensing of Environment, Vol. 108, pp 369-384. doi:10.1016/j.rse.2006.11.028 Imp. Fac.: 3.064 (2006)
- 2007 - Sobrino, J.A., Jiménez-Muñoz, J. C., Gómez, M., Barella-Ortiz, A. , Sòria, G., Julien, Y., Zaragoza-Ivorra, M. M., Gómez, J. A., de Miguel, E. , Jiménez, M., Su, Z., **Timmermans, W.J.**, Moreno, J., Guanter, L. and Bianchi, R. "Application of high-resolution thermal infrared remote sensing to assess land surface temperature and emissivity in different natural environments." 10th Intl. Symposium on Physical Measurements and Signatures in Remote Sensing, 12-14 March 2007, Davos, Switzerland (Abstract).
- 2007 - Hajnsek, I., Bianchi, R., Davidson, M., D'Urso, G., Gomez-Sanchez, J.A., Hausold, A., Horn, R., Howse, J., Löw, A., Lopez-Sanchez, J.M., Ludwig, R., Martinez-Lozano, J.A., Mattia, F., Miguel, E., Moreno, J., Pauwels, V., Ruhtz, T., Schmillius, Ch., Skriver, H., Sobrino, J.A., **Timmermans, W.J.**, Wloczyk, C., Wooding, M., "AgriSAR 2006 – Airborne SAR and Optics Campaigns for an improved monitoring of agricultural processes and practices." General Assembly, European Geosciences Union, 15 – 20 April 2007, Vienna, Austria. Geophysical Research Abstracts, Vol. 9, 04085, 2007.
- 2007 - Pauwels, V., **Timmermans, W.J.**, Löw, A., "Study of the energy budget during AgriSAR 2006." General Assembly, European Geosciences Union, 15 – 20 April 2007, Vienna, Austria. Geophysical Research Abstracts, Vol. 9, 01278, 2007.
- 2007 - Van der Tol, C., Su, Z., Gieske, A.S.M., Timmermans, J., **Timmermans, W.J.**, Jia, L., "Fluxes of energy, carbon dioxide and water measured over a vineyard in Barrax, Spain, during the SPARC and SEN2FLEX campaigns." General Assembly, European Geosciences Union, 15 – 20 April 2007, Vienna, Austria. Geophysical Research Abstracts, Vol. 9, 10011, 2007.
- 2006 - **Timmermans, W.J.**, John D. Albertson, Giacomo Bertoldi, Albert Olioso, Zhongbo Su, Ambro S.M. Gieske "Accounting for ABL variability on flux estimation using remote sensing data." Second Recent Advances in Quantitative Remote Sensing. Ed. José A. Sobrino. Servicio de Publicaciones. Universitat de Valencia. Auditori de Torrent, Spain, 25-29 September 2006, pp 602-607. ISBN-84-370-6533-X; 978-84-370-6533-5.
- 2006 - Bertoldi, G., **Timmermans, W.J.**, Albertson, J.D., Kustas, W.P. "The effect of land-atmosphere feedbacks on the spatial structure of land surface fluxes over heterogeneous terrain." Proceedings of the 30st Hydraulics and Hydraulic Engineering Conference - IDRA, September 2006, Rome 10-15, Italy.
- 2006 - Jia, L., Su, Z., Elbers, J., Gieske, A.S.M., **Timmermans, W.J.**, Olioso, A., Nerry, F., Sobrino, J.A., "Thermal Heterogeneity of Vineyard Canopy in

Complex Terrain: Measurements and Modeling", Proceedings of IEEE IGARSS 2006, Denver, Colorado, 31 July-4 August 2006.

- 2006 - A. Arneth, Veenendaal E. M., Best C., **Timmermans, W.J.**, Kolle O., Montagnani L., Shibistova O. "Water use strategies and ecosystem-atmosphere exchange of CO₂ in two highly seasonal environments." *Biogeosciences*, Vol. 3, pp 421-437. Imp. Fac.: 2.125
- 2006 - Timmermans, J., Gieske, A.S.M., **Timmermans, W.J.**, Van der Velde, R., Su, Z. "The Comparison of Directional Canopy Temperatures to Canopy Component Temperatures over a Vineyard using Multi-Source models." 2nd International symposium on Recent Advances in Quantitative Remote Sensing, 25-29 September 2006, Valencia, Spain (Abstract).
- 2006 - Su, Z., Gieske, A.S.M., **Timmermans, W.J.**, Timmermans, J., Van der Velde, R., Jia, L., Elbers, J., Jin, X., van der Kwast, H., Olioso, A., Sobrino, J.A., Moreno, J., Nerry, F., Sabol, D., Bianchi, R. "Land-Atmosphere exchanges of water, energy and carbon dioxide in space and time over the heterogeneous Barrax site during SPARC 2004 and Sen2Flex 2005." *Second Recent Advances in Quantitative Remote Sensing*. Ed. José A. Sobrino. Servicio de Publicaciones. Universitat de Valencia. Auditori de Torrent, Spain, 25-29 September 2006, pp 484-491. ISBN-84-370-6533-X; 978-84-370-6533-5.
- 2005 - French, A.N., Jacob, F., Anderson, M.C., Kustas, W.P., **Timmermans, W.J.**, Gieske, A., Su, Z., Su, H., McCabe, M.F., Li, F., Prueger, J., Brunsell, N. Corrigendum to "Surface energy fluxes with the Advanced Spaceborne Thermal Emission and Reflection radiometer (ASTER) at the Iowa 2002 SMACEX site (USA)". [*Remote Sensing of the Environment* 99 (1-2), pp 55-65]. *Remote Sensing of the Environment* 99 (4), p 471. Imp. Fac.: 2.833
- 2005 - J.D. Albertson, G. Bertoldi, W.P. Kustas, **W.J. Timmermans**, "The effect of land-atmosphere feedbacks on the spatial structure of land surface fluxes over complex terrain." *Eos Trans. AGU*, 86(52) Fall. Meet. Suppl., Abstract, B31E-06, San Francisco, California, USA. 5-9 December 2005.
- 2005 - French, A.N., Jacob, F., Anderson, M.C., Kustas, W.P., **Timmermans, W.J.**, Gieske, A., Su, Z., Su, H., McCabe, M.F., Li, F., Prueger, J., Brunsell, N. "Surface energy fluxes with the Advanced Spaceborne Thermal Emission and Reflection radiometer (ASTER) at the Iowa 2002 SMACEX site (USA)". *Remote Sensing of the Environment* 99 (1-2), pp 55-65. Imp. Fac.: 2.833
- 2005 - **Timmermans, W.J.**, J. van der Kwast, A.S.M. Gieske, Z. Su, A. Olioso, L. Jia, J. Elbers "Intercomparison of energy flux models using ASTER imagery at the SPARC2004 site (Barrax, Spain)" *ESA Proceedings WPP-250, SPARC Final Workshop, ITC Enschede, 4-5 July 2005, The Netherlands*.
- 2005 - Z. Su, L. Jia, X. Jin, J. Elbers, A. Gieske, **W.J. Timmermans**, H. van der Kwast, A. Olioso, J.A. Sobrino, J. Moreno, F. Nerry, D. Sabol "In-situ measurements of land-atmosphere exchanges of water, energy and carbon dioxide in space and time over the heterogeneous BARRAX site during SPARC2004" *ESA Proceedings WPP-250, SPARC Final Workshop, ITC Enschede, 4-5 July 2005, The Netherlands*.

- 2005 - A.S.M. Gieske, J. Hendrikse, v. Retsios, B. van Leeuwen, B.H.P. Maathuis, R. Romaguera, J.A. Sobrino, **W.J. Timmermans**, Z. Su "Processing of MSG-1 SEVIRI data in the thermal infrared - Algorithm development with the use of the SPARC2004 dataset" ESA Proceedings WPP-250, SPARC Final Workshop, ITC Enschede, 4-5 July 2005, The Netherlands.
- 2005 - J.A. Sobrino, M. Romaguera, G. Sòria, M.M. Zaragoza, M. Gómez, J. Cuenca, Y. Julien, J.C. Jimenez-Munoz, Z. Su, L. Jia, A. S.M. Gieske, **W.J. Timmermans**, H. Van der Kwast, A. Olioso, F. Nerry, D. Sabol, J. Moreno, "Thermal measurements in the framework of SPARC" ESA Proceedings WPP-250, SPARC Final Workshop, ITC Enschede, 4-5 July 2005, The Netherlands.
- 2004 - Su, Z., Jia, L., Jin, X, Elbers, J., Gieske, A.S., **Timmermans, W.J.**, Van der Kwast, H., Olioso, A., Sobrino, J.A., Moreno, J., Nerry, F., Sabol, D.,. "Land-atmosphere exchanges of water and energy in space and time over a heterogeneous land surface." In Proceedings of the 2nd international CAHMDA workshop on: The Terrestrial Water Cycle: Modelling and Data Assimilation Across Catchment Scales, edited by A.J. Teuling, H. Leijnse, P.A. Troch, J. Sheffield and E.F. Wood, pp. 129-130, Princeton, NJ, October 25-27, 2004.
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- 2003 - International Conference on Tropical Savannas and Seasonally Dry Forests: Ecology, Environment and Development, Edinburgh, United Kingdom. 15-20 September 2003. A poster entitled: Dryland vegetation transpiration and its role in floodplain water balance in a floodplain-island system of Okavango Delta, Botswana. By: P. Wolski and **W.J. Timmermans**.
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- 1993 International Conference on Irrigation and Drainage, The Hague, The Netherlands, 1993. Presentation of posters and computer demos on the use of remote sensing and GIS in water resources management. By: **W.J. Timmermans**