

Europass Curriculum Vitae

Personal information

First Name/ Surname	Manuela Balzaro
Address	via Vignarola, 01035, Gallese (VT), Italy
Telephone	+39 340 3077915
E-mail	manuela.balzaro@gmail.it
Nationality	Italian
Date of birth	4 April 1977
Gender	Female

Work experience

Dates	1-5 OCTOBER 2012
Occupation or position held	Visiting scientist at ECMWF
Main activities and responsibilities	During this visit I interacted with ECMWF land surface and carbon groups. My activity focused principally on the ECMWF land surface model evaluation and for the new developments related to carbon dioxide exchange and atmospheric composition modeling over several biomes and meteorological conditions.
Name and address of employer	Dr. Gianpaolo Balsamo, Physical Aspects Section/Model Division - ECMWF, Shinfield Pak, Reading, RG2 9AX, UK
Type of business or sector	European Meteorological Center
Dates	NOVEMBER 2009 - NOVEMBER 2012
Occupation or position held	PostDoc research fellowship
Main activities and responsibilities	I worked as a post-Doc at the Department for innovation in biological, agro-food and forest systems (DIBAF) of the University of Tuscia thanks to geoland2 project fellowship. In the Land Carbon Core Information Service (LC-CIS) task I worked on the validation of carbon and water fluxes predicted by several land-carbon models against eddy covariance data. At the same time I was involved in EUROSPEC Cost Action as scientific responsible for DIBAF. I'm still coordinating the Working Group 1 activities on ground-based optical measurements at European eddy covariance sites.
Name and address of employer	Dr. Dario Papale, Airborne Remote Sensing Laboratory, DiBAF, University of Tuscia, via Pacinotti, 5, 01100 Viterbo (Italy)
Type of business or sector	University
Dates	DECEMBER 2006 - OCTOBER 2009
Occupation or position held	Research fellowship
Main activities and responsibilities	I worked as researcher at DISAFRI, University of Tuscia, and I was involved in the analysis of the relation between CO ₂ uptake from terrestrial ecosystems (as measured by eddy covariance technique) and remote sensing measurements from field to global scale. I worked also on the use of the webcams for vegetation phenology monitoring and of NDVI and PRI sensors to detect physiological status of vegetation. In this period I did my PhD on the estimation of carbon fluxes of a Mediterranean mountain grassland using proximal and remote sensing data and deriving vegetation indices from continuous measurements of radiation.

Name and address of employer	Prof. Riccardo Valentini, Laboratory of Forest Ecology, DiSAFRI, University of Tuscia, via S.C. de Lellis, S.n.c., 01100 Viterbo (Italy)
Type of business or sector	University
Dates	JUNE 2007
Occupation or position held	Research collaboration
Main activities and responsibilities	Definition and application of indexes of water availability, drought early-warning model, drought assessment, elaboration of hydro-meteorological data, water management, sustainable use of the water resources.
Name and address of employer	Prof. Becciu, Politecnico di Milano
Type of business or sector	University
Dates	DECEMBER 2003 – NOVEMBER 2006
Occupation or position held	Research fellowship
Main activities and responsibilities	I worked as researcher at DISAFRI, University of Tuscia, thanks to the fellowships funded by CARBOMONT and CarboEurope-ip projects. I coordinated scientific activities and supervised fieldworks at Amplerio eddy covariance site. I organized hyperspectral field campaigns, soil respiration and LAI measurements and biomass samplings. I was also responsible for eddy covariance measurements and data elaboration.
Name and address of employer	Prof. Riccardo Valentini, Laboratory of Forest Ecology, DiSAFRI, University of Tuscia, via S.C. de Lellis, S.n.c., 01100 Viterbo (Italy)
Type of business or sector	University
Dates	APRIL 2003 - NOVEMBER 2003
Occupation or position held	Stage
Main activities and responsibilities	I worked on the analysis of the landuse changes on the classification of burnt areas using satellite images.
Name and address of employer	Carlo Gavazzi Space Spa – Milan (Italy)
Type of business or sector	Sensing Applications
Education and training	
Dates	2005 – 2007
Title of qualification awarded	PhD in Forest Ecology
Principal subjects/occupational skills covered	- Forest Ecology - Remote Sensing
Name and type of organisation providing education and training	University of Tuscia, Viterbo (Italy)
Dates	1997 - 2002
Title of qualification awarded	Degree in Environmental Sciences with specialisation in Agriculture
Principal subjects/occupational skills covered	- Environmental Sciences - Remote Sensing
Name and type of organisation providing education and training	Faculty of Agronomy, University of Milan (Italy)
Dates	10 September 2003 – 21 September 2003
Title of qualification awarded	EU-SOCRATES Intensive Program
Principal subjects/occupational skills covered	- methods, tools and approaches for sustainable rural area development
Name and type of organisation providing education and training	University of Innsbruck (Austria)

Personal skills and competences

Language

Mother tongue(s) ITALIAN

ENGLISH
FRENCH

	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
	GOOD	GOOD	GOOD	GOOD	GOOD
	EXCELLENT	EXCELLENT	EXCELLENT	EXCELLENT	GOOD

Informatics skills and competences

Programming language: Matlab
 Statistical software: Sigma Plot
 Image processing: Matlab, Envi, Ortho PCI
 GIS: ArcView 3.2 and ArcView 9.2

Additional information

PEER-REVIEWED PUBLICATION IN ENGLISH

- Anderson K., Rossini M., Pacheco-Labrador J., **Balzarolo M.**, MacArthur A., Fava F., Julitta T., Vescovo L. (2012). Inter-comparison of hemispherical conical reflectance factors (HCRF) measured with four fibre-based spectrometers. *Optics Express (in press)*
- Boussetta S., Balsamo G., Beljaars A., Agusti-Panareda A., Calvet J-C, Jacobs Cor, van den Hurk B., Viterbo P., Lafont S., Dutra E., Jarlan L., **Balzarolo M.**, Papale D., van der Werf G.. Natural land carbon dioxide exchanges in the ECMWF Integrated Forecasting System: Implementation and Offline validation (2012). *Journal of Geophysical Research (in review)*
- Boussetta S., Balsamo G., Beljaars A., Agusti-Panareda A., Calvet J-C, Jacobs Cor, van den Hurk B., Viterbo P., Lafont S., Dutra E., Jarlan L., **Balzarolo M.**, Papale D., van der Werf G.. Natural land carbon dioxide exchanges in the ECMWF Integrated Forecasting System: Implementation and Offline validation (2012). ECMWF Tech. Memo. 640.
- Vescovo L., Anderson K., **Balzarolo M.**, 2011. Delivering reliable spectral ground data. International Innovation. ISSN 2041-4552 Research Media Ltd.
- **Balzarolo, M.**, Anderson, K., Nichol, C., Rossini, M., Vescovo, L., Arriga, N., Wohlfahrt, G. Calvet, J-C., Carrara, A., Cerasoli, S., Cogliatil, S., Daumard, F., Eklundh, L., Elbers, J.A., Evrendilek, F., Handcock, R.N., Kaduk, J., Klimpp, K., Longdoz, B., Matteucci, G., Meroni, M., Montagnani, L., Ourcival, J-M., Sánchez-Cañete, E.P., Pontailler, J-Y., Juszczak, R., Scholes, B. and Martín, M.P. (2011). Ground-Based Optical Measurements at European Flux Sites: A Review of Methods, Instruments and Current Controversies. *Sensors* 11, 7954-7981
- Vescovo L., Wohlfahrt G., **Balzarolo M.**, Pilloni S., Sottocornola M., Rodeghiero M., Gianelle D. (2011). New spectral vegetation indices based on the near-infrared shoulder wavelengths for remote detection of grassland phytomass. *International Journal of Remote Sensing*, 33(7), 2178-2195
- Calvet, J.-C., Balsamo, G., **Balzarolo, M.**, Barbu, A., Cescatti, A., Chevallier, F., Delbart, N., de Vries, J., Gibelin, A-L., Horanyi, A., Kullman, L., Lafont, S., Mahsouf, J-F., Maignan, F., Papale, D., Seufert G. (2010). Monitoring soil and vegetation fluxes



of carbon and water at the global scale: the land carbon core information service of GEOLAND2. In *Proceedings of the Third Recent Advances in Quantitative Remote Sensing, Valencia*, Spain, 27 September–1 October 2010; Sobrino, J.A., Ed.; Universitat de València: València, Spain, 2010; pp. 405–410.

- Wohlfahrt G., Anderson-Dunn M., Bahn M., **Balzarolo M.**, Berninger F., Campbell C., Carrara A., Cescatti A., Christensen T., Dore S., Eugster W., Friberg T., Furger M., Gianelle D., Gimeno C., Hargreaves K., Hari P., Haslwanter A., Johansson T., Marcolla B., Milford C., Nagy Z., Nemitz E., Rogiers N., Sanz M.J., Siegwolf R.T.W., Susiluoto S., Sutton M., Tuba Z., Ugolini F., Valentini R., Zorer R., Cernusca A. (2008). Biotic, abiotic and anthropogenic controls on the net ecosystem CO₂ exchange of European mountain grasslands. *Ecosystems*, 11 (8): 1338–1351
- Bahn M., Rodeghiero M., Anderson M., Dore S., Gimeno S., Drösler M., Williams M., Ammann C., Berninger F., Flechard C., Jones S., **Balzarolo M.**, Kumar S., Newesely C., Priwitzer T., Raschi A., Siegwolf R., Susiluoto S., Tenhunen J., Wohlfahrt G., Cernusca A.. (2008). Soil respiration in European grasslands in relation to climate and assimilate supply. *Ecosystems*, 11 (8): 1352–1367
- Gilmanov T.G., Soussana J.-F., Aires L., Allard V., Ammann C., **Balzarolo M.**, Barcza Z., Bernhofer C., Campbell C.L., Cernusca A., Cescatti A., Clifton-Brown J., Dirks B.O.M., Dore S., Eugster W., Fuhrer J., Gimeno C., Grunwald T., Haszpra L., Hensen A., Ibrom A., Jacobs A.F.G., Jones M.B., Lanigan G., Laurila T., Lohila A., Manca G., Marcolla B., Nagy Z., Pilegaard K., Pinter K., Pio C., Raschi A., Rogiers N., Sanz M.J., Stefani P., Sutton M., Tuba Z., Valentini R., Williams M.L., Wohlfahrt G. (2007). Partitioning European grassland net ecosystem CO₂ exchange into gross primary productivity and ecosystem respiration using light response function analysis. *Agriculture, Ecosystems and Environment*, 121: 93–120

PEER-REVIEWED PUBLICATION IN ITALIAN

- Corona P.M., Monteverdi, M.C., Barbati A.M., Beritognolo I., **Balzarolo M.**, Santini M., Da Canal S., De Dato G., Fratini G., Kuzminsky E., Abruzzese G., Sabatti M., De Angelis P. (2007). Linee di ricerca forestale a supporto della lotta alla desertificazione. *Rendiconti Accademia Naz. delle Scienze detta dei XL, Memorie di Scienze Fisiche e Naturali*, 125, vol. XXXI, P.II,t. I, pp. 311–328
- **Balzarolo M.**, S. Bocchi, M. Boschetti, P.A. Brivio (2003). Utilizzo di immagini Landsat ETM+ per lo studio della produttività del pascolo alpino. Caso di studio: la malga di Trela, Parco Nazionale dello Stelvio. *Bollettino dell'associazione Italiana di cartografia (AIC)*, 117-119: 455–464

CONFERENCE PAPERS

- Anderson K., Rossini M., **Balzarolo M.**, Vescovo L., Nichol C., Pilar-Martin, M., MacArthur A.. Spectral measurements at flux tower sites: initial findings from the Eurospe project (2011). Proceeding of RSPSoc Annual Conference - Earth Observation in a Changing World, 13–15 September 2011, Bournemouth, United Kingdom (*in press*)
- Calvet, J.-C., G. Balsamo, **M. Balzarolo**, A. Barbu, A. Cescatti, F. Chevallier, N. Delbart, J. de Vries, A.-L. Gibelin, A. Horanyi, L. Kullmann, S. Lafont, J.-F. Mahfouf, F. Maignan, D. Papale, G. Seufert and H. The, 2009: Monitoring soil and vegetation fluxes of carbon and water at the global scale: the land carbon core information service of GEOLAND2, *Proc. of ECMWF/GLASS workshop on Land Surface Modelling, Data Assimilation and the implications for predictability*, 9–12 November 2009, Reading, United Kingdom
- **Balzarolo M.**, Boschetti M., Bocchi S., Brivio P.A.. Estimation of alpine pasture biomass using field radiometric data: limit and application of traditional satellite data. IEEE GOLD Remote Sensing Conference Proceedings, 13–14 May 2004, Naples, Italy
- **Balzarolo M.**, Belli C., Dore S., Valentini R.. Monitoring grassland pasture productivity using high-resolution ASPIS imagery and field remote sensing. IEEE GOLD Remote Sensing Conference Proceedings, 13–14 May 2004, Naples, Italy

RECENT CONFERENCE AND MEETING PRESENTATIONS

- Calvet J-C., Albergel, C., Balsamo G., **Balzaro M.**, Barbu A., Boussetta S., Cescatti A., Chevallier F., de Vries J., Kullmann, L., Lafont S., Mahfouf J.-F., Maignan, F., Papale, D., Poulter, B., Szczępta C., Szintai, B. (2012). Monitoring soil and vegetation fluxes of carbon and water at the global scale: the land carbon core information service of GEOLAND2. EGU - Geophysical Research Abstracts, Vol. 14, EGU2012-2049, 2012
- **Balzaro M.**, Papale D. Model carbon benchmarking and model evaluation over Europe using eddy covariance data. Geoland2 Land Carbon Progress Meeting No 5, 13 September 2011, Warsaw, Poland
- Anderson K., Rossini M., **Balzaro M.**, Vescovo L., Nichol C., Pilar-Martin, M., MacArthur A.. Spectral measurements at flux tower sites: initial findings from the Euros pec project (2011). RSPSoc Annual Conference - Earth Observation in a Changing World, 13-15 September 2011, Bournemouth, United Kingdom.
- **Balzaro M.**, Martin M. P., Anderson K., Rossini M., Nichol C., Vescovo L. (2011). State of art of the ground-based optical measurements at European flux sites: current status and future directions. EGU - Geophysical Research Abstracts, Vol. 13, EGU2011-10178-1, 2011
- **Balzaro M.**, Papale D. Results of model evaluation over Europe. GMES Fast Track Service Land Land Carbon Progress Meeting No 4, 3-4 March 2011 Budapest, Hungary
- Calvet, J.-C., Balsamo, G., **Balzaro M.**, Barbu, A., Cescatti, A., Chevallier, F., Delbart, N., de Vries, J., Gibelin, A-L., Horanyi, A., Kullman, L., Lafont, S., Mahfouf, J-F., Maignan, F., Papale, D., Seufert G. (2010). Monitoring soil and vegetation fluxes of carbon and water at the global scale: the land carbon core information service of GEOLAND2, 3rd International Symposium Recent Advances in Quantitative Remote Sensing, 27 September-1st October 2010, Valencia, Spain
- Calvet, J.-C.; Balsamo, G; Barbu, A; **Balzaro M.**; Cescatti, A.; Chevallier, F.; Delbart, N.; de Vries, J.; Kullmann, L.; Lafont, S.; Papale, D. (2010). Monitoring Soil and Vegetation Fof Carbon and Water at the Global S: towards a GMES Service, 2010 ESA Living Planet Symposium, 27 June -1st July 2010, Bergen, Norway
- **Balzaro M.** (2010). Tower-mounted multispectral sensors: features and limitations. Working Groups Joint Meeting and Management Committee Meeting, 28-30 April 2010, Fondazione Edmund Mach Viote del Monte Bondone, Trento, Italy
- **Balzaro M.** (2009). Monitoring regional patterns of canopy-scale phenology with a digital webcam. Workshop on phenology and climate change. Centro Servizi del Consorzio per lo Sviluppo Industriale della Provincia di Rieti, 7-8 July 2009, Rieti (Italy)
- **Balzaro M.**, Valentini R. (2008). Biometric parameters and carbon fluxes estimation in Mediterranean mountainous grassland with remote sensing techniques. SpecNet Europe meeting. 30 June – 4 July 2008, Centro di Ecologia Alpina-Fondazione Edmund Mach, Trento (Italy)
- **Balzaro M.** (2008). IMECC: Infrastructure for Measurements of the European Carbon Cycle. SpecNet Europe meeting. 30 June–4 July 2008, Centro di Ecologia Alpina-Fondazione Edmund Mach,Trento (Italy)
- **Balzaro M.** (2008). ICOS: Integrated Carbon Observing System. SpecNet Europe meeting, 30 June – 4 July 2008, Centro di Ecologia Alpina-Fondazione Edmund Mach, Trento (Italy)
- **Balzaro M.**, Monteverdi M.C., De Luca A. and Valentini R. (2006). Characterization of Tamarix Aphylla and Tamarix Jordanis in salt stress condition using spectral radiometry. International Conference on Biosaline Agriculture & High Salinity Tolerant, 03-08 November 2006, Gammarth (Tunisia)



- **Balzarolo M.**, Vescovo L., Gianelle D. and Valentini R., 4th Carbomont workshop - WP5 on Remote Sensing, 25-26 October 2004, Innsbruck (Austria)
- **Balzarolo M.**, Belli C., Dore S., Valentini R.. Monitoring grassland pasture productivity using high- resolution ASPIS imagery and field remote sensing. IEEE GOLD Remote Sensing Conference, 13-14 May 2004, Naples (Italy)
- **Balzarolo M.**, Boschetti M., Bocchi S., Brivio P.A., 2003. La montagna nelle riprese satellitari. Conferenza nazionale "Cartografia della montagna", 28-30 Aprile 2003, Museo di Scienze Naturali, Università degli Studi di Trento, Trento (Italy)

ABSTRACTS AND POSTERS

- **Balzarolo M.**, Balsamo G., Barbu A., Boussetta S., Calvet J.-C., Chevallier F., de Vries J., Kullmann L., Lafont S., Maignan F., Papale D., and Poulter B. (2012). Modelling carbon and water fluxes at global scale. EGU - Geophysical Research Abstracts, Vol. 14, EGU2012-2049, 2012
- Calvet J-C., Albergel, C., Balsamo G., **Balzarolo M.**, Barbu A., Boussetta S., Cescatti A., Chevallier F., de Vries J., Kullmann, L., Lafont S., Mahfouf J.-F., Maignan, F., Papale, D., Poulter, B., Szczypta C., Szintai, B. (2012). Monitoring soil and vegetation fluxes of carbon and water at the global scale: the land carbon core information service of GEOLAND2. EGU - Geophysical Research Abstracts, Vol. 14, EGU2012-2049, 2012
- Calvet J-C., Albergel, C., Balsamo G., **Balzarolo M.**, Barbu A., Boussetta S., Cescatti A., Chevallier F., de Vries J., Kullmann, L., Lafont S., Mahfouf J.-F., Maignan, F., Papale, D., Poulter, B., Szczypta C., Szintai, B. (2012). The GEOLAND2 global Land Data assimilation System. 2nd TERRABITES Symposium: Modelling the terrestrial biosphere: From Ecological Processes to Remote Sensing Observations. ESA-ESRIN, Frascati, Rome, Italy, 6-8 February 2012
- **Balzarolo M.**, Balsamo G., Barbu A., Boussetta S., Calvet J-C., Cescatti A., Chevallier F., Lafont S., Maignan F., de Vries J., Kullman L., Papale D. (2011). In-situ verification and comparison of three models for predicting carbon and water fluxes across ecosystems. GEO-Carbon Conference: Carbon in a changing world, FAO-Rome, Italy, 14-26 October 2011
- Calvet J.-C., Albergel C., Balsamo G., **Balzarolo M.**, Barbu A., Boussetta S., Cescatti A., Chevallier F., de Vries J., Kullmann L., Lafont S., Mahfouf J.-F., Maignan F., Papale D., Poulter B., Szczypta C., Szintai B. (2011). Monitoring soil and vegetation fluxes of carbon and water at the global scale: the land carbon core information service of GEOLAND2. GEO-Carbon Conference: Carbon in a changing world, FAO-Rome, Italy, 14-26 October 2011
- **Balzarolo M.**, Balsamo G., Barbu A., Boussetta S., Calvet J-C., Cescatti A., Chevallier F., Lafont S., Maignan F., de Vries J., Kullman L., Papale D. (2011). In-situ verification and comparison of three models for predicting carbon and water fluxes across ecosystems. 3rd iLEAPS Science Conference, Garmisch-Partenkirchen, Germany, 18-23 September 2011
- **Balzarolo M.**, Papale D. (2011). Estimation of carbon fluxes by broadband vegetation indices for mediterranean mountain grassland. FLUXNET and Remote Sensing Open Workshop: Towards Upscaling Flux Information from Towers to the Globe, June 7-9, 2011, Berkeley, California
- **Balzarolo M.**, Balsamo G., Barbu A., Boussetta S., Calvet J.-C., Cescatt iA., Chevallier F.,Lafont S., Maignan F., de Vries J., Kullman L., Papale D. (2011). Modelling carbon and water fluxes across ecosystems: the Land Core Information Service of Geoland2. FLUXNET and Remote Sensing Open Workshop: Towards Upscaling Flux Information from Towers to the Globe, June 7-9, 2011, Berkeley, California
- **Balzarolo M.**, Papale D. and geoland2 LC-CIS Team (2010). On the validation of mass and energy fluxes in the Land Carbon Core Information Service (LC-CIS) of geoland2. 3rd International Symposium Recent Advances in Quantitative Remote Sensing,



- Calvet J.-C., Balsamo G., **Balzarolo M.**, Barbu A., Cescatti A., Chevallier F., DELBART N., de Vries J., Gibelin A-L., Horanyi A., Kullman L., Lafont S., Mahfouf J-F., Maignan F., Papale D., Seufert G. (2010). Monitoring soil and vegetation Fof Carbon and Water at the Global S: towards a GMES Service. 2010 ESA Living Planet Symposium, Bergen, Norvège, 27 June-1st July 2010
- Vescovo L., Gianelle D., Wohlfahrt G. and **Balzarolo M.** (2009) Monitoring grassland biophysical parameters and carbon fluxes of montane grasslands using remote sensing measurements. 30th Canadian Symposium on Remote Sensing, 22-25 June, 2009, Lethbridge – Alberta (CA)
- **Balzarolo M.**, Arriga N. and Papale D. (2009). LAI estimation in a Mediterranean grassland by in situ radiometric measurements and MODIS satellite data. EGU - Geophysical Research Abstracts, Vol. 11, 9216-1, 2009
- **Balzarolo M.**, Papale D. and Richardson A. D. (2009). Relationships between canopy greenness and CO₂ dynamics of a Mediterranean deciduous forest assessed with webcam imagery and MODIS vegetation indices. EGU – Geophysical Research Abstracts, Vol. 11, 11324-1, 2009
- Gavrichkova O., **Balzarolo M.**, Mazzenga F. and Valentini R. (2007). Combined effect of meteorological and physiological driving factors on soil respiration of autotrophic and heterotrophic origin in a Mediterranean grassland. Annual CarboEurope meeting, Poznan, Poland, 8-12 October 2007
- **Balzarolo M.**, Monteverdi M.C., De Luca A., Papale D. and Valentini R. (2007). Land degradation and salt-plant tolerance using proximal sensing. 27th EARSEL Symposium-Geo-information in Europe, 04-07 June 2007, Bozen (Italy)
- Vescovo L., **Balzarolo M.**, Fiora A., Gianelle D., Mazzenga F., Papale D. and Valentini R. (2007). Ecosystem carbon fluxes and canopy spectral reflectance in two mountain meadows with different management. 27th EARSEL Symposium, Geo-information in Europe, 04-07 June 2007, Bozen (Italy)
- **Balzarolo M.**, Dore S. and Valentini R. (2006). Carbon balance of an Italian grassland in two years with contrasting weather conditions. Open Science Conference on the GHG Cycle in the Northern Hemisphere, 13-18 November 2006, Sissi, Lassithi - Crete (Greece)
- **Balzarolo M.**, Monteverdi M.C., De Luca A. and Valentini R. (2006). Characterization of Tamarix Aphylla and Tamarix Jordanis in salt stress condition using spectral radiometry. International Conference on Biosaline Agriculture & High Salinity Tolerant, 03-08 November 2006, Gammarth, Tunisia - Book of Abstracts
- **Balzarolo M.**, Monteverdi M.C., De Luca A. and Valentini R. (2006). Use of proximal sensing to understand salinity tolerance in plants. The case study of Tamarix Aphylla and Tamarix Jordanis. International Conference on Biosaline Agriculture & High Salinity Tolerant, 03-08 November 2006, Gammarth (Tunisia) - Book of Abstracts
- Wohlfahrt G., Anderson-Dunn M., Bahn M., **Balzarolo M.**, Berninger F., Campbell C., Carrara A., Cescatti A., Christensen T., Dore S., Eugster W., Friberg T., Furger M., Gianelle D., Gimeno C., Hargreaves K., Hari P., Haslwanter A., Johansson T., Marcolla B., Milford C., Nagy Z., Nemitz E., Rogiers N., Sanz M.J., Siegwolf R.T.W., Susiluoto S., Sutton M., Tuba Z., Ugolini F., Valentini R., Zorer R. and Cernusca A. (2006). EGU - Geophysical Research Abstracts, Vol. 8, 03025, 2006
- **Balzarolo M.**, Dore s., Blasi S., Silvani D. and Valentini R. (2005). Summer drought and carbon fluxes of a mediterranean italy grassland. 3rd CarboEurope-IP Meeting, 13-19 November 2005, Levi (Finland)
- Chiti T., **Balzarolo M.**, Certini G., Valentini R., Sanesi G., Arfaiali P., Streumann H.J. Dore and Forte C.. Carbon storage and exchange in an Apennine grassland (2005). 3rd CarboEurope-IP Meeting, 13-19 November 2005, Levi (Finland)



- **Balzarolo M.**, Dore S., Blasi S., Silvani D. and Valentini R. (2004). Carbon flux of a grassland in the Italian appenines. Meeting FLUXNET, 13-15 December 2004, Florence (Italy)
- Manca G., Marcolla B., Cescatti A., Gianelle D., Dore S., **Balzarolo M.**, Stefani P., Raschi A., Lanini M. and Valentini R. (2004). Summer 2003 heat wave effect on grassland carbon balance. Meeting FLUXNET, 13-15 December 2004, Florence (Italy)
- Boschetti M., **Balzarolo M.**, Brivio P.A. and Bocchi S. (2003). Estimation of alpine pasture net primary production using field radiometric data: a scaling up approach. Workshop on Airborne Remote Sensing for Geophysical and Environmental Applications, 13-15 April, 2003, Rome

Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali".

*IN FEDE
Manuela Balzarolo*