PUBLICATIONS

A- INTERNATIONAL, PEER-REVIEWED SCIENTIFIC JOURNALS

- F. Uboldi and A. Trevisan, 2015. Multiple-scale error growth in a convection-resolving model. *Nonlinear Processes in Geophysics*, **22**, 1-13.
- F. Uboldi, A. N. Sulis, C. Lussana, M. Cislaghi and M. Russo, 2014. A spatial bootstrap technique for estimation of rainfall annual maxima distribution parameters. *Hydrology and Earth System Sciences*, **18**, 981-995.
- C. Lussana, F. Uboldi, and M. R. Salvati, 2010. A spatial consistency test for surface observations from mesoscale meteorological networks. *The Quarterly Journal of the Royal Meteorological Society*, **136**, 1075-1088.
- C. Lussana, M. R. Salvati, U. Pellegrini, and F. Uboldi 2009. Efficient high-resolution 3-D interpolation of meteorological variables for operational use. *Advances in Science and Research*, **3**, 105-112.
- C. Lussana and F. Uboldi, 2009. Reference crop evapotranspiration estimate using high-resolution meteorological network's data. *Advances in Science and Research*, **3**, 113-118.
- F. Uboldi, C. Lussana and M. Salvati, 2008: Three-dimensional spatial interpolation of surface meteorological observations from high-resolution local networks. *Meteorological Applications*, **15**, 331-345.
- A. Carrassi, A. Trevisan, L. Descamps, O. Talagrand and F. Uboldi, 2008: Controlling instabilities along a 3DVar analysis cycle by assimilating in the unstable subspace: a comparison with the EnKF. *Nonlinear Processes in Geophysics*, **15**, 503-521.
- A. Carrassi, M. Ghil, A. Trevisan and F. Uboldi, 2008: Data assimilation as a nonlinear dynamical systems problem: Stability and convergence of the prediction-assimilation system. *Chaos*, **18**, 023112.
- A. Carrassi, A. Trevisan and F. Uboldi, 2007: Adaptive Observations and Assimilation in the Unstable Subspace by Breeding on the Data-Assimilation System. *Tellus*, **59A**, 101-113.
- F. Uboldi and A. Trevisan, 2006: Detecting unstable structures and controlling error growth by assimilation of standard and adaptive observations in a primitive equation ocean model. *Nonlinear Processes in Geophysics*, **13**, 67-81.
- F. Uboldi, A. Trevisan and A. Carrassi, 2005: Developing a Dynamically Based Assimilation Method for Targeted and Standard Observations. *Nonlinear Processes in Geophysics*, **12**, 149-156.
- A. Trevisan and F. Uboldi, 2004: Assimilation of standard and adaptive observations within the unstable subspace of the observation-analysis-forecast cycle system. *Journal of the Atmospheric Sciences*, **61**, 103-113.
- M. Kamachi, T. Kuragano, H. Ichikawa, H. Nakamura, A. Nishina, A. Isobe, D. Ambe, M. Arai, N. Gohda, S. Sugimoto, K. Yoshita, T. Sakurai and F. Uboldi, 2004: Operational Data Assimilation System for the Kuroshio South of Japan: Reanalysis and Validation. *Journal of Oceanography*, **60**, 303-312.
- M. Kamachi, T. Kuragano, S. Sugimoto, K. Yoshita, T. Sakurai, T. Nakano, N. Usui and F. Uboldi, 2004: Short-range Prediction Experiments with Operational Data Assimilation System for the Kuroshio South of Japan. *Journal of Oceanography*, **60**, 269-282.
- M. Kamachi, T. Kuragano, N. Yoshioka, J. Zhu and F. Uboldi, 2001: Assimilation of satellite altimetry into a western North Pacific operational model. *Advances in Atmospheric Science*, **18**, 767-786.
- F. Uboldi and M. Kamachi, 2000: Time-space weak-constraint data assimilation with nonlinear models. *Tellus*, **52A**, 412-421.
- F. Uboldi and A. Buzzi, 1994: Successive Corrections Methods Applied to Mesoscale Meteorological Analysis. *Nuovo Cimento C*, **17**, 745-761.

JOURNAL REFEREE:

International Journal of Bifurcation and Chaos; Journal of Applied Meteorology and Climatology; Journal of Oceanography; Nonlinear Processes in Geophysics; Tellus-A.

PUBLICATIONS

B1/2- CONTRIBUTIONS TO CONFERENCES AND SEMINARS

- F. Uboldi and C. Lussana, 2013. Representativity of a mesonet temperature observations with respect to model fields. Poster presentation at EMS (European Meteorological Society) - ECAM (European Conference on Applications of Meteorology) meeting, 09-13 September 2013, Reading, UK.
- F. Uboldi, A. N. Sulis, M. Cislaghi, C. Lussana and M. Russo, 2013. Systematic errors and time dependence in rainfall annual maxima statistics in Lombardy. Oral presentation at EMS (European Meteorological Society) - ECAM (European Conference on Applications of Meteorology) meeting, 09-13 September 2013, Reading, UK
- C. Lussana, M. Ranci, F. Uboldi, 2012. A quality-control-oriented database for a mesoscale meteorological observation network. Poster presentation at EGU General Assembly, 22-27 April 2012, Vienna, AUSTRIA
- F. Uboldi, 2012. Confronto tra stime da campi di modello e osservazioni della rete regionale lombarda; classificazione delle stazioni per rappresentatività riferita a COSMO-I7 e ECMWF-0125. Seminario presso ARPA Emilia Romagna, 5 Giugno 2012, Bologna, ITALY.
- F. Uboldi, A. Trevisan and O. Drofa, 2011. Assessing the role of remote-sensing data assimilation in controlling the trajectory instabilities of a convection-resolving system. Poster presentation at the joint SRNWP (Short-Range Numerical Weather Prediction Programme) Workshop on Data Assimilation and Ensemble Prediction Sysyem, 23-25 February 2011, Bologna, ITALY.
- F. Uboldi, C. Lussana, M. R. Salvati and M. Ranci, 2010. Interpolation and automatic quality control in mesoscale observation networks. Seminar at the Meteorological Institute of Belgium, 26 November 2010, Bruxelles, BELGIUM.
- F. Uboldi, A. Trevisan, 2010. Perturbation growth characterization in a convection-resolving system. Oral presentation at the workshop "Instability properties of regional models: ensemble forecast, boundary forcing and assimilation" at the Meteorological Institute of Belgium, 25 November 2010, Bruxelles, BELGIUM.
- C. Lussana, F. Uboldi and C. Antoniazzi, 2010. Spatial interpolation of solar global radiation. Oral Presentation at 10th conference EMS - 8th ECAC (European Conference on Applied Climatology), 13-17 September 2010, Zurich, SWITZERLAND.
- C. Lussana, F. Uboldi, M. R. Salvati and M. Ranci, 2010. Spatial interpolation of atmospheric pressure observations from automatic weather stations in complex alpine terrain. Poster Presentation at 10th conference EMS - 8th ECAC, 13-17 September 2010, Zurich, SWITZERLAND.
- F. Uboldi, A. Trevisan and S. Davolio, 2010. Evolution and growth of perturbations in a convection-resolving model. Poster presentation at the 4th HyMeX (HYdrological cycle in Mediterranean EXperiment) workshop,, 8-10June 2010, Bologna, ITALY.
- F. Uboldi, 2010. Inspecting the trajectory instabilities of a convection-resolving model. Poster presentation at the ECODYC (Exploring Complex Dynamics in High-Dimensional Chaotic Systems: From Weather Forecasting to Oceanic Flows) workshop, 25-29 January 2010 Dresden, GERMANY.
- C. Lussana, M. R. Salvati and F. Uboldi, 2009: Testing the performance of a spatial consistency test for data quality control. Oral Presentation at 9th conference EMS - 9th ECAM , 28 September - 2 October 2009, Toulouse, FRANCE.
- C. Lussana, M. Salvati, U. Pellegrini and F. Uboldi, 2008: Efficient high resolution 3-D interpolation of meteorological variables interpolation of meteorological variables for operational use. Oral Presentation at the 8th conference EMS - ECAC, 29 September - 3 October 2008, Amsterdam, HOLLAND.
- M. R. Salvati, C. Lussana e F. Uboldi, 2007: Verification of worded areal forecast of temperature extremes using a high resolution mesoscale analysis field. Poster presentation at the 7th conference EMS - ECAC, 1-5 October 2007, Madrid, SPAIN
- F. Uboldi, M. R. Salvati, and C. Lussana 2007: Spatial analysis of observations from high resolution automatic meteorological networks. Poster presentation at the 7th conference EMS - ECAC, 1-5 October 2007, Madrid, SPAIN
- C. Lussana, M. Ranci, M. R. Salvati, and F. Uboldi, 2007: Automatic data quality control using spatial interpolation with statistical methods. Poster presentation at the 7th conference EMS - ECAC, 1-5 October 2007, Madrid, SPAIN
- A. Trevisan, F. Uboldi e A. Carrassi, 2007: L'assimilazione dati come problema di dinamica non-lineare. Presentazione orale al convegno nazionale di fisica della terra fluida e problematiche affini, 11-15 Giugno 2007, Ischia (NA), ITALIA.
- F. Uboldi, C. Lussana e M. Salvati, 2007: Interpolazione spaziale e controllo di qualità automatico di reti osservative regionali ad alta risoluzione. Poster al convegno nazionale di fisica della terra fluida e problematiche affini, 11-15 Giugno 2007, Ischia (NA), ITALIA.

PUBLICATIONS

B2/2- CONTRIBUTIONS TO CONFERENCES AND SEMINARS

- A. Carrassi, A. Trevisan, L. Descamps, O. Talagrand and F. Uboldi, 2007: Controlling the instabilities along a 3DVAR analysis cycle by assimilating in the unstable subspace: a comparison with the EnKF. Oral presentation at the annual EGU general assembly, 19 April 2007, Wien, AUSTRIA.
- A. Trevisan, A. Carrassi and F. Uboldi, 2006. Prospects of forecast improvements by assimilating in the unstable subspace. Poster and extended abstract, Second THORPEX International Science Symposium, 04-08 December 2006, Landshut, GERMANY. WMO/TD N.1355, WWRP/THORPEX N.7.
- C. Lussana, M. Salvati, M. Ranci and F. Uboldi, 2006: Vertical and horizontal detrending for the optimal interpolation of temperature observations from a high resolution meteorological network. Oral presentation at the 6th conference EMS annual meeting 4-8 September 2006, Ljubljana, SLOVENJA
- C. Lussana, M. Ranci, M. Salvati, F. Uboldi and M. Valentini, 2006: 3D Interpolation of high resolution meteorological observations as a tool for forecast verification. Poster presentation at the FORALPS project conference, September 6th, 2006, Ljubljana, SLOVENJA.
- F. Uboldi, A. Carrassi and A. Trevisan, 2005: Developments of a dynamically consistent targeting and assimilation method. Poster presentation at the Fourth WMO International Symposium on Assimilation of Observations in Meteorology and Oceanography, 18-22 April 2005, Prague, CZECH REPUBLIC.
- A. Trevisan, A. Carrassi and F. Uboldi, 2004: Targeting and assimilation: a dynamically consistent approach. Poster presentation at the First THORPEX International Science Symposium, 6-10 December 2004, Montreal, Québec, CANADA.
- F. Uboldi, A. Trevisan and A.Carrassi, 2004: Developing a dynamically based assimilation method for targeted and standard observations. Seminar at LMD (Laboratoire de Météorologie Dynamique), Paris, FRANCE.
- F. Uboldi, A. Trevisan and A. Carrassi, 2004: Developing a dynamically based assimilation method for targeted and standard observations. Oral presentation at the 1st EGU general assembly, April 2004, Nice, FRANCE.
- A. Carrassi, A. Trevisan and F. Uboldi, 2003: Development of a dynamically based assimilation method. Poster presentation at the Roger Daley memorial symposium, October 2003, Montreal, CANADA.
- A. Buzzi, A. Carillo, M. D'Isidoro, P. Malguzzi, P. M. Ruti, N. Tartaglione and F. Uboldi, 2001: 3D-VAR Assimilation Experiments of MAP events using BOLAM. Proceedings of the 3rd EGS Plinius Conference on Mediterranean Storms, October 2001, Baja Sardinia OT, Italy.
- F. Uboldi, 2000: Tecniche di assimilazione dati in meteorologia e oceanografia. Presentazione orale al meeting: “Caos e complessità: lo stato dell'arte”. Società Italiana Caos e Complessità, Fondazione ENI E. Mattei and Politecnico di Milano. Milano, 17-18 Febbraio 2000.
- F. Uboldi and M. Kamachi, 1999: Weak and Strong Constraint Assimilation with a Nonlinear Model. Poster presentation at the Third WMO (World Meteorological Organization) International Symposium on Assimilation of Observations in Meteorology and Oceanography, June 1999, Quebec City, CANADA.
- F. Uboldi and M. Kamachi, 1997: Eddy Feature Model of Kuroshio Warm-Core Rings for Ocean Data Assimilation. Poster presentation at the Japanese Oceanographical Society Meeting, April 1997, Tsukuba, JAPAN.
- F. Uboldi, A. Buzzi, R. Pelosini and G. Poggi, 1996: On the impact of 3-D analysis of conventional observations on the simulation of a case of intense precipitation south of the Alps. Oral presentation at the May 1996 MAP meeting, Innsbruck, AUSTRIA. Map Newsletters, 5, 38-39.