

Erika Coppola Curriculum Vitae

Position : from-till	Description
06 - 04 - 1973	Erika Coppola was born in Popoli, Italy
November 1992 - December 1998	B.S./M.S. in Physics (Laurea) from University of L'Aquila, Italy. Dissertation title: <i>Application of Neural Network to blocking recognition and prediction</i> (in Italian) Supervisors: G. Visconti and M. Verdecchia
9th June 2004	Awarded the degree of PhD by University of Reading (UK), Meteorological department, dissertation title : <i>Investigation of neural network algorithms for rainfall estimation</i> . Supervisors: D.I.F. Grimes
Current employment	
Research scientist June 2010-present Visiting scientist September 2006-May 2010	Earth System Physics Section, The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy <ul style="list-style-type: none"> • Regional climate change research using global and regional climate models to understand and study the impacts of past and future climate variability and change on climate trends, climate extremes and on the water cycle. • I coordinate the non hydrostatic core development and testing group of the RegCM model for convective permitting resolution simulations. • Coordination of the hydrological model research activity and development of CHyM hydrological model and in particular the coupling of the hydrological model with regional climate model (RegCM) for land-use impact studies and climate change impact on future water resources. • Flood risk estimation over the whole Italian peninsula for the present and future climate conditions. • Non linear inversion algorithms (Artificial Neural Network) for satellite rainfall retrieval: very high spatial and temporal resolution multi-platform multi-sensor satellite precipitation estimates. • Artificial intelligence techniques and statistical methods (EOF,CCA) as a tool for time series climate analysis
Previous employment	
Research Assistant January 2004 - September 2006	Research activity c/o CETEMPS (Center of Excellence for integration of remote sensing techniques and modelling for the forecast of severe weather) , Physics Department, University of L'Aquila , Italy <ul style="list-style-type: none"> • Passive remote sensing of the atmosphere from spaceborne platforms, with a particular focus on precipitation using microwave and infrared data, development of inversion methods neural network based. • Aided in the development, maintenance, and use of the physical based hydrological model of the CETEMPS hydrological model group. The hydrological model was developed by scratch in the CETEMPS group. • Performed AGCM climate change research: change in regime in future climate of the main atmospheric patters (NAO, ENSO, ...)
Research fellow November 2003 - October 2004	Consultancy contract c/o CINECA (Supercomputer Center, Bologna, Italy) in collaboration with ICTP (International Center for Theoretical Physic, Trieste, Italy) for working on the PRUDENCE project
Research fellow October 2000 - October 2003	Research activity as PhD student at Reading University, Meteorological Department (Supervisor: David Grimes)
Research fellow January 1999 - October 2000	Research fellow c/o department of Physics, University of l'Aquila, Italy
Stay Abroad	
September 1999 - December 1999	Research activity at European Center of Medium-Range Weather Forecast (ECMWF) Reading UK
April 2000 - May	Training courses at European Center of Medium-Range Weather Forecast (ECMWF) Reading

2000	UK
October 2000 - December 2003	Training courses and research activity as PhD student at Reading University, Meteorological Department, ReadingUK
Academic Teaching	
Academic year 2003/04	Assistant lecturer of "Laboratory of Numerical Method II" for the degree in Physics of the University of L'Aquila, Italy
2006/2007	Environmental Data Analysis : Earth System Physics Diploma Course, ICTP
2007/2008	Environmental Data Analysis, and Numerical methods: Earth System Physics Diploma Course, ICTP
2008/2009	Environmental Data Analysis, and Numerical methods: Earth System Physics Diploma Course, ICTP
2009/present	Lecturer of Numerical Method I and II: Earth System Physics Diploma Course, ICTP and PhD Earth Science and Fluid Mechanics, University of Trieste
2011/present	Lecturer of Hydrology : Earth System Physics Diploma Course, ICTP and PhD Earth Science and Fluid Mechanics, University of Trieste
Organization of scientific events	<ol style="list-style-type: none"> 1. August 29 - September 2, 2005, L'Aquila, Italy co-director of the international school "ISSAOS 2005 Hydrological modelling and water cycle. Coupling of the atmospheric and hydrological models". Directors of the School Prof. Soroosh Sorooshian 2. 11-15 February 2008, Hurghada, Egypt, co-director of the Workshop on Aerosol-Climate Interactions: Mechanisms, Monitoring, and Impacts in Tropical Regions. Directors: A.S. Zakey, A. Nenes, S. Rauscher, E. Coppola. Local Organizer: M. Abdel-Wahab 3. 13 -15 October 2008, Medclivar workshop on Climate Change Modeling for the Mediterranean Region. Organizers: P. Lionello (University of Lecce, Italy), F. Giorgi (ICTP), E. Coppola (ICTP) and M. Zampieri (CNR) 4. 27 April - 8 May, 2009, ICTP Trieste, Italy, co-director of the conference Water Resources in Developing Countries: Planning and Management in a Climate Change Scenario. Directors of the School Prof. Soroosh Sorooshian 5. 2 November - 10 November, 2009 ICTP Trieste, Italy, co-director of the Workshop and Conference on Biogeochemical Impacts of Climate and Land-Use Changes on Marine Ecosystems 6. Organizer(s): Directors: J. Montoya, L.T. Cang and A. Bracco 13 September - 22 September 2010 ICTP Trieste, Italy, co-organizer of the International MedCLIVAR-ICTP-ENEA Summer School on the Mediterranean Climate System and Regional Climate Change 7. 23 September - 25 September 2010 ICTP Trieste, Italy, co-director of the MedCLIVAR Workshop on: "Scenarios of Mediterranean Climate Change under Increased Radiative Active Gas Concentration and the Role of Aerosols" 8. 5 September - 16 September 2011 ICTP Trieste, Italy, co-director of the Summer School on Climate Impacts Modelling for Developing Countries: Water, Agriculture and Health 9. 2nd Workshop on Water Resources in Developing Countries: Planning and Management in a Climate Change Scenario 6-17 May 2013, ICTP 10. Career Development Workshop for Women in Physics, 16 September - 19 September 2013, ICTP 11. 2nd VALUE Training School: Statistical and Dynamical Downscaling of Extreme Events 21 October - 31 October 2013, ICTP 12. 2nd CLIM-RUN School: Building Two-way Communication: A Week of Climate Services 2 December - 6 December 2013 13. 7th ICTP Workshop on The Theory and Use of Regional Climate Models 12-23 May 2014, ICTP 14. First Workshop on Climate Change, Variability and Modeling over Central America and Mexico, 10-14 November 2014, Ensenada - Mexico 15. 3th VALUE Training School: Spatial and Temporal Variability in Statistical and Dynamical Downscaling #-14 November 2014, ICTP 16. Third Workshop on Water Resources in Developing Countries: Planning and Management in Face of Hydroclimatological Extremes and Variability 25 - 29 May 2015, ICTP

	<ol style="list-style-type: none"> 17. REGCM Training Workshop for Southeast Asia, 10-14 November 2014, Ensenada - Mexico 18. 4th VALUE Training School: Validating Regional Climate Projections, 26-30 October 2015, ICTP 19. Eighth ICTP Workshop on the Theory and Use of Regional Climate Models, ICTP, 23 May 2016 - 3 Jun 2016 20. Joint ICTP-Trieste/ICTP-SAIFR Advanced School on Regional Climate Modeling over South America, SAIFR, São Paulo - Brazil, 15 Feb 2016 - 19 Feb 2016 21. Second Workshop on Climate Change, Variability and Modeling over Central America and Mexico, San Jose - Costa Rica, 14 Nov 2016 - 18 Nov 2016 22. Forth Workshop on Water Resources in Developing Countries. Hydroclimate and Analysis Modelling, ICTP, 12 - 23 Jun 2017 23. Carear Development Workshop for Women in Physics, ICTP, 9 - 13 Oct 2017
Awards and Recognitions	<p>1999 Regione Abruzzo Fellow for young Researcher</p> <p>2000 3th Best Presentations of the Physic Italian Society (SIF) National Congress, 6-11 October, Palermo, Italy</p> <p>2000 Fellow from British Council and Italian Ministry of the University and Scientific Research THE BRITISH-ITALIAN PARTNERSHIP PROGRAMME FOR YOUNG RESEARCHERS</p>
Scientific Supervisory Responsibility	<ol style="list-style-type: none"> 1. M.S. Garuba Oluwayemi, Earth System Physics Diploma Course, ICTP. Thesis (2009): Dynamics of dry season precipitation over tropical west africa in the last decade using Regcm4 2. M.S. Rakotomalala Juliana Mireille S, Earth System Physics Diploma Course, ICTP (2010). Thesis: Validation of global and regional climate models simulation and projection of rainfall and temperature change over Madagascar 3. PhD Laura Mariotti co-supervisor (2010), University of L'Aquila, Italy. Thesis: Impact of Climate Change in West Africa: downscaling high resolution RegCM output by coupling with CHyM hydrological model 4. Master thesis Rita Nogherotto co-supervisor, University of Trieste, Italy. Thesis: Sensitivity study of the effect of the albedo change and land-use change on the western African Monsoon. 5. Master thesis Adriano Fantini (2015), University of Trieste, Italy. Title: Evaluation of the impact of the high resolution for the Alpine region in a present-day and future scenario simulation with the regional climate model RegCM4 6. PhD Fabio di Sante - supervisor (2017), PhD Earth Science and Fluid Mechanics, University of Trieste, Italy. Thesis: Assessing the role of local air-sea interaction over the South Asia region in simulating the Indian Summer Monsoon (ISM) using the new earth system model RegCM-ES 7. PhD Adriano Fantini - supervisor (on-goin), PhD Earth Science and Fluid Mechanics, University of Trieste. Thesis: Climate change impact on flood risk estimation for the Italian region. 8. Post-docs: Francesca Raffaele, Ramon Fuentes, Laura Mariotti, Marta Llopart Pereira, Pichelli Emanuel, Taleena Sines, Das Sushan, Rita Nogherotto
Involvement in International Scientific Projects	<ol style="list-style-type: none"> 1. Prediction of Regional Scenarios and Uncertainties for Defining European Climate Change Risks and Effects (PRUDENCE). European Union (EU), 2001-2004 2. RISK-Advanced Weather forecasting system to Advice on Risk Events and management (RISK AWARE), European Union (EU), 2004-2006 3. ENSEMBLE-Based Predictions of Climate Changes and their Impacts (ENSEMBLES). European Union (EU), 2004-2009 4. Central and Eastern Europe Climate Change Impact and Vulnerability Assessment (CECILIA). European Union (EU), 2006-2008 5. Assessing Climatic change and impacts onthe Quantity and quality of Water (ACQWA). European Union (EU), 2008-2013 6. Climate Local Information in the Mediterranean region: Responding to User Needs (CLIMRUN). European Union (EU), 2010-2014 7. H2020-EUCP (European Climate Prediction system) Research & Innovation, GA 776613. The total amount of the grant is 502250,00 Euro. Starting from December

	<p>2017 to December 2021</p> <p>8. CORDEX: Euro-CORDEX; Med-CORDEX. Member of the Med-CORDEX steering committee.</p> <p>9. Co-principal investigator of the CORDEX FPS on convection permitting modelling</p> <p>10. LA of Chapter 12 of AR6 IPCC report</p>
External research grants awarded	Allianz S.p.A external research grant for a project to be completed in 3 years, starting from October 2015 to September 2018. The total amount of the research grant is 225000,00 Euro. The title of the project is "Flood map estimation for the Italian territory".
Editor of International journal	Regional Environmental Change. Springer
Referee for the International journals	Bulletin of American Meteorological Society; Hydrological Processes (WILEY); Estuarine Coastal and shelf Science (Academic Press); Geophysical Research Letter (AGU), Climate Research, Hydrological Sciences Journal, regional Environmental Change, Monthly Weather Review, Climate Research, Climate Dynamic, International Journal of Climatology
Languages	Italian (mother tongue), English (fluent), German (basic)
Computer Knowledge	<p>Experience with the most popular Unix system and window system. and computer clusters. High computing system like CINECA super computer center, ECMWF super computer.</p> <p>Computer language: FORTRAN95, HTML, MATLAB, Python</p> <p>Scientific software: GRADS, NCL, NCO</p> <p>Experience with Windows XP and VISTA, LINUX (all versions), MAC</p> <p>Word Processors: Latex, Office for Windows.</p>

Google scholar profile :<http://scholar.google.it/citations?user=5dYIf4IAAAAJ&hl>

Publication list: <http://users.ictp.it/~coppolae/publication.pdf>

H-index =28 on Google Scholar

H-index=21 on Web of Science