

# CURRICULUM VITAE OF Rosanna Fantucci

## PERSONAL DETAILS:

Born: May 8, 1961, Viterbo, Italy

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## EDUCATION :

- 1985** - University of Roma "La Sapienza"  
Degree in Geology  
Thesis: Rilevamento geologico-tecnico del territorio del  
comune di Bomarzo (VT).  
Score: 110/110 with honours
- 1986** - Qualification to freelance profession

## **MAIN PROFESSIONAL ACTIVITIES :**

Since 1986 is working as freelance geologist in the following fields:

### **a) GEOTHECNICS**

Assistence to drillings, dynamic and static penetrometric tests, geotchechnical analysis in the laboratory, mine and quarry studies, data examination and tecnical reports.

### **b) HYDROGEOLOGY**

Study of groundwater properties, pumping tests on wells, study of protection areas for wells and springs, study on groundwater pollution.

### **c) GEOPHYSICS**

Geophysical survey with geoelectric Schlumberger array, electric tomography, seismic tomography, MASW, down-hole, georadar.

## **POST GRADUATED COURSES:**

1987 - ANALISIS OF FOUNDATION IN STATIC AND DINAMIC STATE.  
Associazione Nazionale Ingegneri ed Architetti A.N.I.A.I.  
Roma , May,11-15, 1987

1987 - GEOELECTRIC PROSPECTION.  
Ordine Nazionale dei Geologi  
Benevento, November, 11-18, 1987

1989 - 2nd SUMMER SCHOOL ON HYDROGEOLOGICAL HAZARD  
STUDIES  
C.N.R. with U.S.G.S. e W.R.R..

REGIONAL LANDSLIDE ANALYSIS. Prof. Earl E.Brabb  
Perugia (Centro Studi Villa Colombella), October,2-7, 1989.

1990 - 3rd SUMMER SCHOOL ON HYDROGEOLOGICAL HAZARD  
STUDIES  
C.N.R. with U.S.G.S. e W.R.R..

MASS MOVEMENT FLOODING AND SEDIMENTATION HAZARD  
ASSOCIATED WITH EXPLOSIVE VOLCANISM AND OTHER TYPES  
OF LANDSCAPE DISTURBANCE: A CONCEPTUAL APPROACH.  
Prof. Thomas C. Pierson

WAYS OF DATING THE OCCURRENCE OF HAZARDOUS GEOLOGIC PROCESSES.

Prof. A.M. Sarna-Wojcichj e D.R. Harden

REGIONAL ASSESSMENT OF GROUND-WATER QUALITY HAZARDS.

Prof. William M. Alley

Perugia (Centro Studi Villa Colombella), June 18 - July 20, 1990.

1991 - 4th SUMMER SCHOOL ON HYDROGEOLOGICAL HAZARD STUDIES

C.N.R. with U.S.G.S. e W.R.R.

GEOLOGICAL AND HYDROGEOLOGICAL DISASTERS.

Prof. William M. Brown

**VEGETATION AND SLOPE STABILITY.**

**Prof. Jerome V. De Graff**

DESIGN OF REGIONAL GROUND-WATER QUALITY.

Prof. William M. Alley

Perugia (Centro Studi Villa Colombella), June 24 - July 19, 1991.

1992 - SOIL GENESIS, MORPHOLOGY AND MAPPING

University of Madison - Wisconsin USA

Department of Soil Science

Prof. Kevin McSweeney - September, 1992.

**1994 - INTRODUCTION TO DENDROCHRONOLOGY**

**University of Arizona, Tucson - Arizona USA**

**Tree-Ring Laboratory**

**Prof. Thomas Swetnam – August - December 1994.**

**1999 - INTERNATIONAL DENDROECOLOGICAL LABORATORY WEEK” Albert Ludwigs Universitat – Freiburg – Germany. 1-5 February 1999.**

**2000 - 15<sup>TH</sup> INTERNATIONAL DENDROECOLOGICAL FIELDWEEK 2000, 2 – 8 July in Mašun, Slovenia.**

2001– COURSE “1st GROUNDWATER MODELLING COURSE IN VICENZA” Prof. Randolf Rausch – Johannes Riegger, 8-11 Novembre 2000 Sinergeo - Vicenza.

2002 - COURSE “L’INGEGNERIA NATURALISTICA NELLA DIFESA DEL SUOLO” 29-30 Novembre 2001, Padula (SA).

**2003– 1<sup>ST</sup> WINTER SCHOOL ON WOOD ANATOMY OF TREE-RINGS, Davos, Weissfluhjoch, Switzerland, 05-11 January 2003 BY Fritz Hans Schweingruber and Holger Gartner.**

**2004 - PRACTICAL DENDROCLIMATOLOGY – Laboratory of Tree-Ring Research, University of Arizona , Tucson, USA, May 17th – June 4th 2004**

**2005 COURSE OF BASIC STATISTIC APPLIED TO ECOLOGY AND ENVIRONMENT – December 2004 – Roma – APAT**

**2006 PROSPEZIONI GEOFISICHE AD ALTA RISOLUZIONE IN CAMPO AMBIENTALE, Roma 9 Febbraio 2006**

**2006 STABILITA' DEI VERSANTI: ASPETTI TEORICI E PRATICI (LANDSLIDE HAZARD ENGINEERING) Valmontone (Rm) 18-21 Aprile 2006**

## **RESEARCH ACTIVITY**

**2005 – 2008 Project of dendrophenological analysis of Maziana forest (RM) with Prof. A. Vannini (Forestry Dept.) University Tuscia (VT).**

**2004 –2005 Cooperation to the project *CARBIUS* with Dept.of Forestry – University Tuscia - Viterbo (Prof. R.Valentini) for the study of global change through dendrochronology in Italia.**

**2004 – 2005 Dendroseismological analysis along the North Anatolian fault in Turkey in cooperation with INGV (Istituto Nazionale di Geofisica e Vulcanologia) Roma (Dr. D. Pantosti ).**

**2002 – Preliminary study to investigate the potential of dendrochronological analysis on Etna volcano – Sicily (Italy) (Protezione Civile Italiana).**

**2002 - Further analysis on root system on poplars living along the Bolsena lake coast (with Dr. Fidel A. Roig del Laboratorio de Dendrocronología in Mendoza – Argentina)**

**2001** – Dendrogeomorphological research on the “Acri” landslide in Calabria region (supported by C.N.R. – IRPI (Prof. Marino Sorriso Valvo)).

**1999 - 2000** - Dendrogeomorphological analysis of Cerenitse landslide in the Czech Republic for the Institute of Rock Structure and Mechanics (Prof. Jan Rybar).

**1998** – Dendrogeomorphological research on the erosion along the Bolsena lake coast in central Italy requested by the Environmental Province Agency of Viterbo.

**1998** – Dendrogeomorphological research on the reactivation dating of a landslide in the Versilia area (Central-Northern Italy) affected by a strong flooding in June 1997 requested by the E.N.E.A. (Italian Agency for New Technology, Energy and Environment (former Atomic Energy Commission)).

**1997-98** – Dendrogeomorphological researches on a landslide area in Salesian Hill near Prague for the Institute of Rock Structure and Mechanics (Prof. Jan Rybar) of the Czech Republic.

**1996-98** – Research to calibrate dendrochronological analysis on a fault activated during the 1980 earthquake in the Irpinia area (South Italy) supported by E.N.E.A. (Italian Agency for New Technology, Energy and Environment).

**1994-95** - Dendrogeomorphological research on a landslide area in the Mt. Rufeno (Acquapendente VT) Italy supported by the Natural Park of Mt. Rufeno.

**1994-95** - Cooperation to a European Commission Project: "The temporal stability (activity) of landslides in Europe with respect to climatic change" with Prof. Marino Sorriso Valvo C.N.R. IRPI (National Research Council – Research Institute for Idrogeological Protection) Cosenza - Italy using dendrochronology techniques to analyse the “Lago-Cosenza” sakung landslide.

**1994-95** - Cooperation to a European Commission Project: "Metereological factors influencing slope stability and slope movement type: evaluation of hazard prone areas" with Dr.C.Margottini (ENEA, Italy) and Prof. E.Corona (Department of Forestry (Tree-ring Laboratories) - University of Viterbo, Italy) for the use of dendrogeomorphology in landslide areas.

1994-95 - Stage of 5 months at the Tree-Ring Laboratory, University of Arizona, Tucson, U.S.A. working on the dendrochronological techniques applied to geomorphology.

1992 - Cooperation with the Department of Geology and Geophysics - University of Madison - Wisconsin U.S.A., July - September, 1992 to a research project on the hydrogeologic properties on limestone fractured rocks through field structural analysis and elaboration by computer models.

1989-1991 - Cooperation with the University of Viterbo, Faculty of Agriculture, Prof. Ing. A. Leone, 1989-91, to a project on the analysis of runoff and erosion made by a rainfall simulator.

## ARTICLES

- 1) Fantucci R. (1992): L'Ambiente in esame. pp. 36-37. *In* : L' IMPORTANZA DELLA CONOSCENZA DEI MECCANISMI AFFLUSSI - DEFLUSSI NELLA PIANIFICAZIONE DI BACINO - IL RUSCELLAMENTO SUPERFICIALE INTESO COME PROCESSO TERRITORIALE. Leone A. Genio Rurale **5**, 31 - 41.
- 2) Schirone B., G. Piovesan, R. Fantucci R. e F. Spada (1992): LA FRAMMENTAZIONE BOSCHIVA NELL'APPENNINO: BASI TEORICHE E CRITERI DI INTERVENTO. Acts of the Int. Congr. "Green Reclamation and Biological Engineering Techniques". Lignano Sabbiadoro (UD) 21-23 Maggio.
- 3) Bellarosa R., D. Ragno, G. Piovesan, R. Fantucci e B. Schirone (1992): PROPOSTA DI RECUPERO DEL BOSCO S.LUCIA - OSTUNI. Acts of the Int. Congr. "Green Reclamation and Biological Engineering Techniques". Lignano Sabbiadoro (UD) 21-23 Maggio.
- 4) Bellarosa R., R. Fantucci, A. Leone e A. Loporto (1993): OSSERVAZIONI SULL'EVOLUZIONE DELLA VEGETAZIONE COSTIERA DELLA DUNA FENIGLIA IN RAPPORTO AL DINAMISMO DEL TERRITORIO COSTIERO. Acts of the national congress "Salvaguardia delle pinete litoranee". Grosseto 21-22 Ottobre.
- 5) **Fantucci R., C. Margottini (1993): DENDOGEOGRAPHY IN LANDSLIDE ANALYSIS - STATE OF ART. Enea AMB/ANV, Luglio 1993.**
- 6) **Fantucci R. (1994): MULTITEMPORAL TERRAIN MODELS FOR GEOMORPHOLOGICAL EVOLUTION ANALYSIS IN CIVITA DI BAGNOREGIO AREA (VITERBO - ITALY). 2nd Workshop CEC Project on: Meteorological factors influencing slope stability and slope**

**movement type: evaluation of hazard prone areas. Courmayeur (AO) Italy, 2-4 February.**

- 7) Arnold B. W., J. M. Bahr, R. Fantucci (1995): PALEOHYDROLOGY OF THE UPPER MISSISSIPPI VALLEY ZINC-LEAD DISTRICT. International Field Conference on Carbonate-Hosted Lead-Zinc Deposits, Association of Exploration Geochemists and U.S. Geological Survey, June, 3-6, St Louis Missouri U.S.A.
- 8) **Fantucci R. (1996): LA DENDROGEOMORFOLOGIA NELLO STUDIO DEI DISSESTI FRANOSI: ALCUNE RECENTI APPLICAZIONI IN ITALIA. Geologia tecnica & ambientale (2/97, 21-32).**
- 9) **Fantucci R., A. McCord (1996): RECONSTRUCTION OF LANDSLIDE DYNAMIC WITH DENDROCHRONOLOGICAL METHODS. Dendrochronologia, 13, 1995 (1996), 33-48.**
- 10) **Fantucci R. (1997): L'UTILIZZO DELLA METODOLOGIA DENDROGEOMORFOLOGICA NELLO STUDIO DEI DISSESTI FRANOSI. Proceedings of IX Italian Geological Congress, April 1997 (233-235).**
- 11) **Fantucci R., M. Sorriso-Valvo (1999): DENDROGEOMORPHOLOGICAL ANALYSIS OF A SLOPE NEAR LAGO, CALABRIA (ITALY). Geomorphology 30, 165-174.**
- 12) **Fantucci R. (2000): DENDROGEOMORPHOLOGY IN LANDSLIDE ANALYSIS. In "Floods and Landslides", special monograph by Springer Verlag (69-80).**
- 13) **Fantucci R., Rybar J., Vilimek V. (2000): DENDROCHRONOLOGICAL ANALYSIS OF ČEŘENIŠTE LANDSLIDE (CZECH REPUBLIC), Acts of C.N.R. Congress in Torino, 8 - 9 June 2000 "Condizionamenti Geologici e Geotecnica nella Conservazione del patrimonio Storico Culturale".**
- 14) **Fantucci R. (2002): DENDROSEISMOLOGICAL ANALYSIS OF THE IRPINIA FAULT (SOUTH ITALY). Acts of Dendrochronology, Environmental Change and Human History – 6th International Conference on Dendrochronology (Québec City, Canada, August 22nd-27th, 2002).**
- 15) **Vilímek V., Fantucci R., Stemberk J. (2002): DENDROGEOMORPHOLOGICAL INVESTIGATIONS OF SLOPE**

**DEFORMATION ON SALESIIUS HILL IN THE KRUŠNÉ HORY MTS. In: Landslides. Rybář, Stemberk, Wágner eds., Proceedings of the 1<sup>st</sup> Europe Conference on Landslides, Prague, 24.-26. June 2002, 321-326, Balkema, Brookfield, Rotterdam.**

- 16) Fantucci R. (2002): DENDROCHRONOLOGICAL ANALYSIS OF SHORE EROSION ALONG LAKE BOLSENA (CENTRAL ITALY). Proceedings of International Conference on “ Residence time in lakes: science, management, education” (Bolsena (Vt) 29 Settembre – 3 Ottobre 2002)**
- 17) Baiocchi A. , Fantucci R., Lotti F., Piscopo P.: ASPETTI IDROGEOLOGICI DELLA STRUTTURA CIMINO-VICANA: IMPLICAZIONI SU GESTIONE E SALVAGUARDIA DELLE RISORSE IDRICHE SOTTERRANEE. Atti della Giornata di Studio “Le risorse idriche nel Viterbese: salvaguardia e sviluppo sostenibile” 22 Maggio 2003 – Università di Viterbo La Tuscia.**
- 18) Fantucci R.: SCIENZE AMBIENTALI: LA DENDROCRONOLOGIA COME METODO D’INDAGINE. Hydrogeo, vol. 1, Ottobre 2005, pp. 48-59.**
- 19) Fantucci R.: DENDROGEOMORPHOLOGICAL ANALYSIS OF SHORE EROSION ALONG LAKE BOLSENA (CENTRAL ITALY). Acts of European Congress Eurodendro 2005 – International Conference of Dendrochronology, 28 Settembre – 2 Ottobre 2005 – Viterbo (Italy). pp. 17**
- 20) Fantucci R., Margottini C. Gaertner H.: DENDROCHRONOLOGY AND WOOD ANATOMY AS TOOLS TO INVESTIGATE SLOPE INSTABILITY EVOLUTION: CASE STUDY OF THE CARDOSO LANDSLIDE (TUSCANY – ITALY). Acts of European Congress Eurodendro 2005 – International Conference of Dendrochronology, 28 Settembre – 2 Ottobre 2005 – Viterbo (Italy). pp. 49**
- 21) Piscopo V., Baiocchi A., Fantucci R., Lotti F.: (2005) LA RISPOSTA AL POMPAGGIO DI ACQUIFERI VULCANICI: ALCUNI ESEMPI NELLE AREE NAPOLETANA E VITERBESE. Italian Journal of engineering Geology and Environment, 1, pp. 21- 35.**
- 22) Fantucci R.: DENDROGEOMORPHOLOGICAL ANALYSIS OF SHORE EROSION ALONG LAKE BOLSENA (CENTRAL ITALY). Dendrochronologia 24, (2007), 69-78**
- 23) Fantucci R. Margottini C. UNDERSTANDING THE IMPACT OF CLIMATE CHANGE ON NATURAL HAZARDS: THE RELATIONSHIP AMONG PRECIPITATION, FLOODS AND DROUGHTS IN THE LAST MILLENNIUM IN ITALY. ( submitted to Journal of Natural Hazard).**

## **PARTECIPATION TO CONGRESS:**

1. Tree Ring Talk: “DENDROGEOMORPHOLOGICAL ANALYSIS OF MASS MOVEMENTS IN ITALY” – Wednesday, January 18, 1995 – 12 Noon, Room 104G, West Stadium, Tucson University – Arizona U.S.A.
2. European School of Climatology and Natural Hazards: Course on Floods and Landslides Integrated Risk Assessment 19-26 May, 1996 – Orvieto – Italy: “DENDROGEOMORPHOLOGY IN LANDSLIDE ANALYSIS”.
3. IX Congresso Nazionale dei Geologi: Dalla Ricerca alle Applicazioni – Risorse e Sviluppo, Prospettive per il XXI Secolo - Le risposte delle Scienze della Terra, Roma 17-20 Aprile 1997: L'UTILIZZO DELLA METODOLOGIA DENDROGEOMORFOLOGICA NELLO STUDIO DEI DISSESTI FRANOSI.
4. Eurodendro '99 – Conference of European Dendrochronology Workshop – 22-26 September 1999 – Malbork – Poland: “DENDROGEOMORPHOLOGICAL EVIDENCE OF THE 1980 IRPINIA EARTHQUAKE (SOUTH ITALY).
5. International conference of dendrochronology “Tree Rings and People” – 22-26 Settembre 2001, Davos, Svizzera: “DENDROGEOMORPHOLOGICAL ANALYSIS OF CERENISTE LANDSLIDE (BOHEMIAN MASSIF, CZECH REPUBLIC).
6. Istituto Italiano di Dendrocronologia “Situazione attuale e prospettive della dendrocronologia in Italia”, 21-22 Febbraio 2002 Verona: EXAMPLES OF GEOMORPHOLOGICAL STUDIES IN ITALY.
7. Dendrochronology, Environmental Change and Human History – 6th International Conference on Dendrochronology (Québec City, Canada, August 22nd-27th, 2002): DENDROSEISMOLOGICAL ANALYSIS OF THE IRPINIA FAULT (SOUTH ITALY).
8. International Conference on “Residence time in lakes: science, management, education” (Bolsena (Vt) 29 Settembre – 3 Ottobre 2002):

DENDROCHRONOLOGICAL ANALYSIS OF SHORE EROSION ALONG LAKE BOLSENA (CENTRAL ITALY).

9. One day Conference: “*Le risorse idriche nel Viterbese: salvaguardia e sviluppo sostenibile*”, Viterbo 22 Maggio 2003, Università Degli Studi La Tuscia – Viterbo: ASPETTI IDROGEOLOGICI DELLA STRUTTURA CIMINO – VICANA E IMPLICAZIONI SULLA GESTIONE E SULLA SALVAGUARDIA DELLE RISORSE IDRICHE SOTTERRANEE.
10. One day Course: NEW METHODS (DENDROCHRONOLOGY) TO EXAMINE LANDSLIDE AND OTHER GEOLOGICAL AND ENVIRONMENTAL TOPICS, Ordine dei Geologi della Campania, Napoli, Università Federico II, 30 January 2004.
11. Italian Conference of G.N.G.D.T.S.: TREE-RING ANALYSIS APPLIED TO PALEOSEISMOLOGY IN ITALY AND TURKEY, Rome, 28-30 Nov. 2006

### **UNIVERSITY ACTIVITY:**

Contract professor in the Faculty of Environmental Sciences “ Università della Tuscia (VT)” of: *LABORATORY OF SOIL SCIENCE* during the year 2000-2003.

Contract professor in the Faculty of Environmental Sciences “ Università della Tuscia (VT)” of: *CARTOGRAPHY IN THE ENVIRONMENT* during the year 2003-2005.

Contract professor in the the Faculty of Environmental Sciences “ Università della Tuscia (VT)” of: *SOIL SCIENCE* during the year 2005-2006.

### **OTHER SCIENTIFIC ACTIVITIES:**

Referee from 2003 for the sector "Landscape and Geomorphology" of the review "Dendrocronologia" , WSL (Swiss National Science Foundation) and the review "Geografia fisica e Quaternaria".