

Curriculum vitae

Marco Ciolli

1 Curriculum

1.1 Biographical profile

- Born in Firenze (Florence, Italy) 12/5/1964,
High school diploma 1983, Liceo Classico “Galileo”, Florence
- Degree in Forestry 1991, Faculty of Agronomy, University of Florence 110 summa cum laude
- 1992 one year at Sylviculture Department of Comunità Montana del Casentino (AR, Italy).
- 1993 Professional qualification (Abilitazione professionale)
- 1993-2001 research fellow with PhD and post-doc scholarships at DICA, Department of Civil and Environmental Engineering, University of Trento.
- 1998 PhD in Forest Assessment and Planning, University of Tuscia, Italy
- 1999 to 2009 Coordinator of the Natural Science area of SSIS (University School of Teachers Education) of Rovereto.
- Since 2002 Assistant professor at DICA Trento he taught courses, participated in and coordinated many research projects and published relevant papers.
- National Scientific Qualification 2016 as **Associate Professor** obtained.

Current position: Assistant Professor (Professore Aggregato) at Department of Civil Environmental and Mechanical Engineering, DICAM, University of Trento.

1.2 Main scientific topics

Applied ecology, Planning and management of natural resources, GIS Modelling of forest biomass production, GIS Modelling of natural resources management and renewable energy development, Landscape ecology, Forest change scenarios, Markov chain modelling in forestry, Remote Sensing, Forest cartography, Floristic inventories, Ecological informatics, Tropical Ecology, Primates population assessment, Camera traps, Ecosystem services evaluation, Traditional Ecological Knowledge.

1.4 Activity as a referee

Springer Journals: Biodiversity and Conservation, Environmental Management, Applied Geomatics; Biological Conservation, Acta Physiologiae Plantarum, Applied Geography; Elsevier Journals: Landscape and Urban Planning, Urban Forestry & Urban Greening, Science of the Total Environment; Others: African Journal of Agricultural Research, Remote Sensing (MDPI), Journal of Integrative Environmental Sciences (Taylor & Francis), Geomatics Workbooks, Forest@, International Journal of Biodiversity and Conservation, Journal of Mountain Science. He is invited member of the Advisory Review board of iForest (SISEF) and of the Editorial committee of Dendronatura. Since 2012 he is referee for PRIN (Research Programs of National Relevance) COFIN and FIRB projects.

1.5 Member of Bodies, organizations

- Member and co-chair of the UNESCO Chair in Engineering for Human and Sustainable Development, University of Trento since 2011.
- Member of OSGeo association (Open Source Geospatial Foundation), and member of Geoforall and of

Education and curriculum committee of OSGEO association.

- Charter member and co-funder of the Italian OSGEO chapter.
- Member of Geoforall "Geo for All" the Open Source Geospatial Foundation's Open Educational outreach with partners worldwide with the mission for making geospatial education and opportunities since 2016
- Member of CUDAM University Centre for Advanced Studies on Hydrogeological Risk in Mountain Areas, Centre of excellence of the Italian Ministry for Education, University and Research.
- Member of the Editorial committee of Dendronatura since 2006
- Member of the Advisory Review board of the international Journal iForest - Biogeoscience and Forestry (SISEF) since 2010
- Project advisor for National Research Council of Thailand.

1.6 Didactic and Istituzionale activity

- 1999-2009 he contributed to design the scientific program and content of Rovereto SSIS (University School of Teachers Education) of the University of Trento and was responsible for didactic in Natural Science coordinating the work of tutors and supervisors. He taught the courses: Didattica delle Scienze, Ecologia, Ecologia Applicata, Sviluppo Sostenibile, Ecologia e Sviluppo Sostenibile, Botanica, Temi didattici e piani di studio, Aspetti pedagogici dell'insegnamento delle scienze, Tecnologie informatiche per la didattica delle discipline scientifiche. He coordinated the careers and curriculum of the students and was President and Member of the national examination commissions.
- 2000-2002 Professor in the course: Pianificazione Ecologica del Territorio Forestale. Corso di Laurea in Ingegneria per l'Ambiente e il Territorio dell'Università di Ingegneria di Trento, while from 1996 to 2000 he collaborated in didactic activity as tutor, assistant lecturer (esercitatore) and examiner. He also covered the role of examiner for Corso di Tecnologia del Legno e dei Materiali Legnosi.
- 2004-2007 DICA appointed him the responsibility to teach the courses: GIS e Telerilevamento, Botanica, Interazione genotipo ed ambiente, in the frame of the master degree "Viticoltura, Enologia e Mercati Vitivinicoli", organized by a consortium of University of Trento, University of Padova, University of Trieste and Istituto Agrario di S. Michele all'Adige.
- 2005-2010 he taught the Course: Ecologia dei paesi Tropicali e subtropicali (corsi di laurea triennale) credits type F.
- 2002-2010 Professor of Ecological and Sustainable Planning of Forest Landscape (Pianificazione Ecologica del Territorio Forestale) Master Degree in Environmental Engineering, Faculty of Engineering Trento.
- 2005-2010 Professor of the module of Ecology (Ecologia) for the degree course TPALL: Tecniche della prevenzione nell'ambiente e nei luoghi di lavoro, organized by University of Trento and University of Verona.
- 2005-2012 Professor of Ecology for economists (Ecologia 2), Master degree course in Economy and Management of environment and tourism, Faculty of Economy of Trento.
- 2011-2016 he contributed to design TFA and PAS (University Courses for Teachers with Tirocinium) at University of Trento, coordinated tutors and supervisors, was President and Member of the national examination commission for Natural science in and taught the courses: Laboratori didattici di biologia, scienze della vita e scienze naturali, Didattica delle scienze per la SSIG.
- Since 2011 in the frame of Unesco Chair he is director, organizes and teaches the Summer School: "Tropical rainforest biodiversity: field and GIS tools for assessing, monitoring and mapping" Udzungwa Mountains National Park, Tanzania in partnership with Museo delle Scienze di Trento, Tanzania National Parks, Danish Museum of Natural History, University of Copenhagen, Wildlife Conservation Society. A total of 110 Learners attended the 2011-12-13-15-16 editions.

- Since 2010 Professor of Applied Ecology, master degree course of Environmental Engineering, University of Trento, DICAM.
- Professor of Field sampling and Spatial Ecological Modelling (Since 2016) and Environmental data management and analysis (since 2007) PhD courses at Doctoral School in Environmental Engineering, University of Trento.
- Marco Ciolli is member of the Doctoral School Committee of Doctoral School in Environmental Engineering University of Trento, tutor of Pietro Zambelli, XXVI cicle, Gianluca Grilli and Nathalie Cavada XXIX cicle, Robert Malek XXXI cicle, Stefano Gobbi, Andrea Corradini, Sabina Avosani, Chammem Hamza, Imane Akassou XXXII cicle and was tutor of Andryei Bulgan University of Ulan Bator, (Mongolia), in the frame of Erasmus Mundus programme.
- He participated and taught the Summer Labs 2017 in Mesiano, Laboratori didattici per la divulgazione della scienza, laboratori scientifici Progettati e realizzati dal DICAM all'interno del Family Audit (conciliazione tempo lavoro-tempo famiglia) 7 June 2017.
- He is member and active participant of two "Laboratori interdipartimentali" FAMA (Rete/Laboratorio per lo studio e la valutazione delle Fragilità in Ambiente Montano Alpino) and UNITN4D (UNITN for Development) of the University of Trento.

1.7 Student evaluation of Applied Ecology Course

AA 2017-18 Numero studenti 15	Giudizio (%) E' complessivamente soddisfatto di come è stato svolto
140251 Attività didattica Ecologia applicata	100
Media Corso di studio (LM CDS_332H Ingegneria per l'ambiente e il territorio)	85

1.8 Technology transfer, education and capacity building

- He organized and taught the Training course in GIS Geographic Information System with elements of GPS, May 2010 Byumba, District of Gicumbi, Northern Province, Rwanda, Africa; 20 Local Professionals, technicians and educators attended the course.
- He organized the Course for Forest park ecologists of TANAPA (Tanzania National Parks): Biodiversity monitoring techniques and standardization across TANAPA forest parks: training course for forest Park Ecologists held in August 2013. 24 Tanzanian Ecologists attended the course.
- From 2008 to 2010 he participated in a cooperation project in Rwanda aimed to improve local technical knowledge, provide energy and improve forest sustainability.
- 21 September 2013 Citizen panel: Gruppo di lavoro per la definizione delle alternative sostenibili per lo sviluppo del paese di Montagne (Trento) con Elena Ianni. Tavolo con politici, sindaco, stakeholders e cittadini, 50 participants .
- 4-5 August 2014 Citizen panel: Gruppo di lavoro per la definizione di alternative sostenibili per l'uso di energie rinnovabili nel Parco delle Alpi Marittime incontri a Valdieri (CN) Tavolo con politici, stakeholders e cittadini. Frame: recharge.green project, 80 Participants.
- 4-6 June 2014 Citizen panel: Gruppo di lavoro per la definizione di alternative sostenibili per l'uso di energie rinnovabili nel Bellunese, Incontri a Longarone e Agordo (BL) Tavolo con politici, sindaci, stakeholders e cittadini. Frame: recharge.green project, 100 participants.
- He is participating and coordinating actions in cooperation projects in the Kilombero Valley, Tanzania and in Vietnam regarding the Measure of Cooking Stoves Pollution using Self Built Arduino Based Sensors in rural areas and a study on Agroforestry in the area of Mangula, Tanzania in order to improve local living conditions and health with Mazingira Association.
- 26-27 September 2005 he organized the course: Dendrocronologia e GIS, tecniche innovative per lo studio e la caratterizzazione di fenomeni geomorfologici, Trento and Val di Pejo, Università of Trento,

DICA, CUDAM Centro per la Difesa idrogeologica dell'Ambiente Montano, 10 Participants.

- Since 2003 he is director and teaches the course GRASS and OPEN SOURCE GIS: theory and applications, University of Trento, DICAM, CUDAM, held each year. A total of 430 Learners attended the different editions of the course.

1.9 Conference organization

- Convegno Sistemi Informativi Territoriali in Trentino: dai sistemi alle applicazioni Trento 9/10/1999
- II Meeting of Italian GRASS users, Trento, February 1-2, 2001
- International conference *Open Source Free Software GIS GRASS users conference 2002* 11-13 September 2002 Trento.
- XII Meeting of Italian GRASS and GFOSS users, Trento, February 9-1, 2011
- XVII Italian Ornithological Conference Trento 11-15 September 2013.
- Italian Chiroptera society conference Trento October 2015.
- He participated in many scientific committee in national and international conferences.
- He organized a Panel session of the PECSRL (Permanent European Conference for the Study of the Rural Landscape) biennial International conference "Mountains, uplands, lowlands. European landscapes from an altitudinal perspective", Innsbruck and Seefeld, Austria 5-9 September 2016

1.10 Invited speaker at international events

2015 Application of r.green DSS in pilot areas with focus on conflicts. **Invited Presentation** at: Engagement and conflict prevention in Nature Conservation. International Seminar on the creation of reliable acceptance for conservation measures. Organized by the Baltic Environmental Forum Germany e.V. (BEF) in cooperation with the Lower Saxony Water Management, Coastal Defense and Nature Conservation Agency (NLWKN) in the framework of the Lower Saxony EU LIFE+ project "Meadow Birds" 9 June 2015 Hamburg, Germany

2015 Ecosystems services, decision support systems and participative approach in planning: experiences and lessons learned in the Alpine Region. **Invited Presentation** at European Forestry Commission - 30th session of the EFC WP MMW - Working Party on the Management of Mountain Watersheds - Mountain Watersheds and Ecosystem Services: Balancing multiple demands of forest management in head-watersheds and Stakeholder Training Dialogue with Experts from the Alpine Convention. 23 September 2015, Pieve Tesino, Trento, Italy.

2016 Landscape modelling, energy production, biodiversity and Ecosystem Services: study cases in mountain environment. **Invited presentation** at Biodiversity and Ecosystem Services: the role of endangered species and invasives. First International Workshop 17 October 2016 Palais Claudiana Herzog-Friedrich-Straße 3, Innsbruck

1.11 Making Science accessible to general public & Science communication

19-20 May 2011 Bioweek 2011, Trento, with Muse Trento, he organized and presented the Workshop "Laboratorio Formativo: Biodiversità per lo sviluppo e la lotta alla povertà".

12-13 November 2013 Radio Svizzera Italiana, two invited Radio interviews by Marco Ciolli at the International conference on balancing renewable energy and nature in the Alps Brig, Switzerland, Briga, CH. Framework: recharge.green project.

18 February 2014 at 15.00 RAI 2 (Radio 2) Thematic Invited Interview: Le foreste in Trentino.

2014 Participation in the Documentary: All'ombra degli Udzungwa, di Massimo Gabbani Italia 33' presented at Trento Film Festival. Framework: Unesco Chair

2016 Newspaper Repubblica, cited in the article: L'orso bruno sulle Alpi del Trentino: per sopravvivere occorre migrare: http://www.repubblica.it/ambiente/2016/03/03/news/orso_alpi-134690160/

2 Research projects

Date	Funding Body	Role	Project Title
1993-1995	CFS State Forestry Corps and MRAAF Italian Ministry for Agricultural, Alimentary and Forest Resources	Participant	La foresta e I suoi valori, studio interdisciplinare in pianificazione forestale” (The forest and forest values, Interdisciplinary studies in forest planning)
1995	DICA Department of Civil and Environmental Engineering	Participant	Forest types productivity and forest silviculture management in spruce forests of Fiemme valley” (Tipologia, produttività e trattamento selvicolturale delle peccete della val di Fiemme
1995	DICA Department of Civil and Environmental Engineering	Participant	”Regional forest planning” (Pianificazione forestale regionale)
1996-1997	DICA Department of Civil and Environmental Engineering	Participant	”Forest Trees growth rhythm”(Ritmi di accrescimento degli alberi forestali)
1998	DICA Department of Civil and Environmental Engineering	Participant	”Forest types, ecological approach to forest management” (Tipologie forestali, approccio ecologico alla gestione forestale)
1998	DICA Department of Civil and Environmental Engineering	Participant	”Restoration of Brenta River” (Riqualficazione dell’asta fluviale del Brenta). Study of DICA for Comprensorio della Bassa Valsugana e del Tesino)
1998	Comunità Montana della Valle Cannobina	Participant	Landscape and Ecological plan Valle Cannobina (Piedmont)” Realizzazione del Piano ecologico territoriale della Valle Cannobina. Study of DICA for Comunità Montana della Valle Cannobina (VCO)
1998	DICA Department of Civil and Environmental Engineering	Participant	”Ecological approach to sustainable management and forest planning” (Approccio ecologico alla gestione sostenibile ed alla pianificazione forestale)
1999	DICA Department of Civil and Environmental Engineering,	Participant	”Ecological approach to sustainable management and forest planning integrating GIS and field techniques” (Approccio ecologico alla gestione sostenibile ed alla pianificazione forestale mediante l’integrazione di tecniche GIS e di campo)
2000	APPA Agenzia Provinciale per la Protezione dell’Ambiente - PAT Provincia Autonoma di Trento	Scientific responsible for Forest Management Sustainability	Progetto per lo sviluppo sostenibile del Trentino, Sostenibilità negli ambienti forestali, WP Indicatori per la gestione sostenibile delle foreste "Project for sustainable development of Trentino, Forest sustainability, Indicators of Sustainable Forest Management"
2001	PAT (Provincia Autonoma di Trento)	Participant	PAT-UNITN New methods to study avalanhe risks: integrating dendrochronological, GIS, GPS techniques and mathematical modeling in Val dei Spini (Pejo,TN)

2003-2004	PAT Provincia Autonoma di Trento	Participant	PAT-UNITN "Integrated evaluation of hydrogeological risks in alpine conoids"
2001-2007	MiPAAF Italian Ministry of agricultural food and forestry policies	Coordinator of Subproject 4.2	RISELVITALIA, Ri.Selv.Italia (Common research Program about Sylviculture in ITALY), Subproject 4.2 - Information Systems to support forest management (Sistemi informativi di supporto per la gestione forestale)
2005-2006	MIUR Italian Ministry for Education University and Research	Participant	MIUR-Cofin 2004 "Advanced structures of numerical cartography for GIS and WEB environment" "Strutture evolute della cartografia numerica per i GIS e l'ambiente WEB"
2004-2005	European Union	Participant	ENSPADS : Expertise Network for Spatial Planning and Decision Support (ENSPADS)", ASEAN-EU University Network Programme (AUNP)"
2005	PAT Provincia Autonoma di Trento	Participant (Cooperation Project)	"Acqua sicura (Safe Water)" Fondazione de Carneri, ISF (Engineering Without Borders), PAT (Provincia Autonoma di Trento), Pemba Island, Tanzania 2005
2005	European Union	Sub-contractor	UTN Urban Technology Network II Pilot Cooperation UGN (Urban GIS Network) INTERREG IIIB CADSES
2008-2009	MIUR Italian Ministry for Education, University and Research	Participant	MIUR-COFIN 2007 "Interoperability and cooperative management of geographic, dynamic, multidimensional and distributed data with Free and Open Source GIS"
2008-2010	European Commission 2,000,000 E	Coordinator of the GIS unit of the University of Trento. (Cooperation Project)	FACILITE ACP-UE POUR L'EAU–Actions dans les Payes ACP–Appel à proposition EuropeAid/122979/C/ACT/ACP–9° Fonds européen de développement intitulé: "Interventions pour le renforcement du réseau hydraulique, pour la protection de l'environnement et la sensibilisation à un usage responsable en collaboration avec le District de Gicumbi dans la Province du Nord" RWANDA, in the frame of ACP projects
2010-2011	CFS State Forestry Corps and CRA-MPF Council for Research in Agriculture Research - Unit for monitoring and forest planning	Coordinator	Digital recovery of 1936 Italian kingdom forest map by Regio Corpo Forestale (Royal forest corps)
2010-2012	Caritro Foundation Fondazione Cassa di Risparmio di Trento e Rovereto Total 545,000 E [40101590]	WP Coordinator, PI Total 126,312 Finan. 58,472 Cofin. 67,850	BIOMASFOR, "Biomassfor project. Potentiality, energetic innovation, ecological and economic sustainability of Trentino forest biomasses"
2012	CAM Consorzio Associazioni con il Mozambico - Tavolo Trentino con il Mozambico	Scientific Responsible (Cooperation Project)	Study of the Biodiversity of Sofala, Caia and Marromeu districts (Mozambique); (Studio sulla biodiversità dell'area di Sofala, Caia e Marromeu) commissioned in the frame of the Revision of the Urban and environmental Plan of the area.

2011-2013	Caritro Foundation Fondazione Cassa di Risparmio di Trento e Rovereto 15,000 E [40102230]	Coordinator 15,000 E	FORCING “Recovery and valorization of Smidth forest Belt archive in the Provincia Autonoma di Trento (FORCING)”
2013-2015	European Union 2,100,000 [30103189]	Sub-contractor 39,400 E	Recharge.green project Alpine Space programme, subcontractor for the action Development of a Decision Support System in GIS environment for the analysis of renewable energy,
2016-2017	Regione Veneto 50,000 E [40102740]	Scientific Coordinator 50,000 E	Standard methods to evaluate the effects of disturbance factors following 2011/484/Ue for impact assessment through a QGIS plugin
2016-2017	Chiesa Valdese 38,000 E	Scientific Coordinator and responsible (Cooperation Project)	Efficient cooking technologies in Tanzania and Vietnam - Experiences aimed to improve the life of local communities that depend on forest resources through emission measurement (Tecnologie di combustione efficienti in Tanzania e Vietnam – Esperienze a confronto per migliorare la vita delle comunità locali dipendenti da risorse forestali, con l'ausilio di analisi delle emissioni ed efficienza delle tecnologie proposte)
2017-2020	European Union	Participant	Innoforest – Innovation in forestry sector in Europe
2018-2019	National Research Council of Thailand	Project Advisor	Analysis, monitoring and prediction of water quality for sustainable land use of the river basin system in Eastern Economic Corridor (EEC), research program through National Research Council of Thailand, Burapha University
2018-2019	Regione Veneto 35,000 E [40103210]	Scientific Coordinator 35,000 E	Definition of standard methods to evaluate the effects of disturbance factors following 2011/484/Ue, for impact assessment through a QGIS plugin for light, thermic pollution, water noise, soil dynamics, marine sediments - Definizione di metodi standard e di applicativi informatici per il calcolo degli effetti dei fattori di perturbazione ai sensi della decisione 2011/484/Ue per la valutazione di incidenza - Inquinamento luminoso, termico, rumore in acqua, nel suolo, sedimenti marini
2018-2021	European Union - EIT ClimateKIC Total 1,492,303 [40103262]	WP Scientific Coordinator and PI Total 195,625 Finan. 134,625 Cofin. 61,000	SATURN - System and sustainable Approach to virTuous interaction of Urban and Rural LaNdsapes. Reconnect Urban and rural environment creating an ecosystems of actors from public, private and academia sectors to guide and nurture innovation in the sustainable use of peri-urban area with systemic approach. The framework includes tools, indicators and collection of best practices to support policy makers and integrated planning.

Note: where Marco Ciolli had the financial responsibility, in the field “Funding body” the Total budget of each project is reported with the UNITN SAP code when available, while in the field “Role” the budget managed by Marco Ciolli is reported.

2.1 Language skills CEFR (C2 Mastery or proficiency - A1 Breakthrough or beginner)

Language	Reading	Speaking	Writing
English	C2	C2	C2
French	C2	C1	B1

3 Publications

3.1 Papers

1. CIOLLI M (1993) *Danni da esbosco in perticacie di origine artificiale*, Dendronatura n.2, pp. 67-77.
2. CIOLLI M, ROMAGNONI E (1994) *Nuove segnalazioni di Pinus cembra L. e Galium rotundifolium L. in Trentino Alto Adige*, Dendronatura n.2, 1994, pp. 77-80
3. CIOLLI M, ROMAGNONI E (1995) *La Val del Leno: Ambiente, Vegetazione, Proposte di tutela e valorizzazione*, Dendronatura n.1, 1995, pp. 7-16
4. GREGORI E., COSTANTINI E.A.C., CALI A., CIOLLI M., SANI L., 1995 - *La protezione del suolo*, ne: Il Bosco e i suoi Valori Volume del Ministero delle risorse agricole, alimentari e forestali, pp. 53-70.
5. CIOLLI M (1996) *Ipotesi di struttura ideale di un GIS per un Ufficio Assestamento*, Dendronatura n.2,1996, pp. 83-87
6. CIOLLI M, ROMAGNONI E (1996) *Flora e vegetazione della Val del Leno* - Annali dell'Accademia di Scienze Forestali, Firenze n°45 1996, pp 267-306.
7. GREGORI E, COSTANTINI EAC, CALI A, CIOLLI M, SANI L (1996) *Studio di un sistema esperto per la valutazione dell'efficacia protettiva della vegetazione nei confronti del suolo*, ne: Il Bosco e i suoi Valori, Studi interdisciplinari in pianificazione forestale multifunzionale, Comunicazioni di Ricerca ISAF 1994/3 pp 145-178.
8. CIOLLI M, ZATELLI P (1997) *Un programma per l'utilizzazione di dati floristici provenienti da foglio elettronico per le elaborazioni con Anaphyto*, Dendronatura n.2, 1997, pp. 67-70.
9. CIOLLI M., 1998 - *Tipologia forestale applicata all'assestamento forestale in Val di Sella (TN)*. Tesi di dottorato in Assestamento forestale X° ciclo, 1998.
10. CIOLLI M., ROMAGNONI E., (1998) - *Typologie forestière d'une Vallée du Trentin Sud Ouest: Val del Leno*. Ecologie, revue de la Société française d'Ecologie, tome 29 (1) 1998, pp. 321-324.
11. CIOLLI M, ZATELLI P (1998) *Il GPS nel rilievo delle Tipologie forestali: limiti nella rioccupazione di aree di saggio con l'utilizzo di GPS differenziale in tempo reale*. Dendronatura 2 1998 pp. 1-5
12. CIOLLI M, ZATELLI P (1999) *Automatic forest area recognition using GIS image analysis capability*, International archives of photogrammetry and remote sensing, vol XXXII part6W7 163-168.
13. CIOLLI M, ZATELLI P (2000) *Avalanche risk management using GRASS GIS*. Geomatics Workbooks, Geomatics Laboratory, Politechnic of Milan Como Campus, n°1 Autumn 2000 12 pp.
14. CIOLLI M, SGUERSO D, ZATELLI P (2000) *GIS applications with GRASS*, Geomatics Workbooks, Geomatics Laboratory - Politechnic of Milan - Como Campus, n° 1, Autumn 2000, 12 pp.
15. CIOLLI M, FERRETTI F, GHERARDI L (1999) *Iper testo di Assestamento*. Monti e Boschi n°5 1999 pp. 25-30.
16. CIOLLI M (1999) *GIS Stato dell'arte e prospettive di utilizzo in campo applicativo e scientifico*, Relazione presentata al Convegno dell'Associazione Forestali del Trentino Sistemi Informativi Territoriali in Trentino: dai sistemi alle applicazioni, Trento, 9 Ottobre 1999, Dendronatura n°2 1999 pp 7-16
17. CIOLLI M, ZATELLI P (2001) *An italian tutorial for GRASS learning*. Geomatics Workbooks - Politechnic of Milan - Como Campus, n° 2, Autumn 2001, 12 pp.
18. CIOLLI M, ZATELLI P (2001) *Gis learning with GRASS*. Geomatics Workbooks, - Politechnic of Milan - Como Campus, n° 2, Autumn 2001, p 4.
19. COMUNELLO G, BEZZI M, CHERUBINI P, CIOLLI M, CANTIANI MG (2001) *Conoscere il passato per interpretare il presente: tecniche GIS e di dendrocronologia applicata per lo studio di aree potenzialmente soggette al rischio di valanghe*. Linea Ecologica n.4 luglio-agosto 2001, 58-62.
20. CIOLLI M, ZATELLI P (2002) *Open Source GIS - GRASS users conference: un'occasione di incontro*

- per favorire il trasferimento tecnologico ai Paesi in Via di Sviluppo*. ISF Press, 2002, 29-31.
21. CIOLLI M, (2002) *Studio sui danni da esbosco nei diradamenti*. Professione Montagna, 2002, 66 Marzo/Aprile, 29-38.
 22. CIOLLI M, ZATELLI P (2002) - *GRASS in ambito professionale*. Il geologo, 2002, 3, 8-19.
 23. CIOLLI M, MILESI E, VITTI A, ZATELLI P (2003) *I cambiamenti del paesaggio montano: analisi delle immagini aeree multitemporali per l'individuazione dei cambiamenti del paesaggio alpino*. Bollettino dell'Associazione italiana di cartografia, 40, 117-1, 397-410.
 24. CIOLLI M, VITTI A, ZATELLI P, (2003) *Un esempio di carta di rischio valanghivo per la Provincia Autonoma di Trento*. Bollettino dell'Associazione italiana di cartografia, 2003 40,117-1, 210-219.
 25. CIOLLI M, REA R, VITTI A, ZARDI D, ZATELLI P (2004) *An integrated use of 2D and 3D raster modules for atmospheric fluxes modeling in GRASS*. Geomatics workbooks, 2004, 3, 15-44.
 26. CIOLLI M, ZATELLI P (2004) *GRASS applications: an overview*. Geomatics workbooks - Politechnic of Milan - Como Campus, 2004, n. 3, pp. 20.
 27. ZAMPA F, CIOLLI M, CANTIANI MG (2004) *A GIS procedure to map forests with a particular protective function*. Geomatics Workbooks - Politechnic of Milan - Como Campus, n° 3, February 2004, pp. 23.
 28. BEZZI M, CIOLLI M, COMUNELLO G, CHERUBINI P, CANTIANI MG (2004) *Integration of dendrochronology and GIS techniques to study avalanche phenomena*. Geomatics Workbooks - Politechnic of Milan - Como Campus, n° 3, February 2004, pp. 10.
 29. CIOLLI M, DE FRANCESCHI M, REA R, VITTI A, ZARDI D, ZATELLI P (2004) *Development and Application of 2D and 3D GRASS Modules for Simulation of Thermally Driven Slope Winds*. Transactions in GIS 8 (2), 191-209, DOI: 10.1111/j.1467-9671.2004.00175.x
 30. CIOLLI M., VITTI A., ZATELLI P., 2004 - "Sistemi Free Software/Open Source per la gestione di informazioni territoriali". L'osservatorio, 2004, 7, 4, 3-10.
 31. CEMIN A., CIOLLI M., RAGAZZI M., ZANONI M., 2004 - "Sistema integrato GIS-database per la gestione dei dati di traffico e produzione di mappe delle emissioni. Applicazione alla città di Trento". IA : ingegneria ambientale, 2004, XXXIII, 10, 479-487
 32. CIOLLI M, FACCHINELLI B (2005) *La sostenibilità degli ecosistemi forestali: indicatori per la gestione forestale sostenibile delle foreste*. Temi e indicatori di sostenibilità ambientale in una regione alpina. Diamantini C. (a cura di), Trento: TEMI, 2005, p. 187-217
 33. CIOLLI M, VITTI A, ZATELLI P (2005) Applicazioni di sistemi FOSS per la gestione di informazioni territoriali. Geomatics workbooks, 2005, vol. 5, <http://geomatica.como.polimi.it/workbooks/n5/list.php>
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3.3 Didactic publications, slides, other resources on line

Didactic publications, Slides of the courses, other didactic material can be found in the esse3 system and moodle platform of the University of Trento and a complete list of all my research output including technical reports can be downloaded at <http://www.ing.unitn.it/~ciolli/mc.htm> my personal page address or at <https://webapps.unitn.it/du/it/Persona/PER0003808/Pubblicazioni>

Marco Ciolli together with Francesco Geri, Fabio Zottele and Nicola La Porta released the WebGIS <http://meteogis.fmach.it/forcing/mappa/index.php>

Marco Ciolli was the coordinator of the project and released in Creative Commons 3.0 BY together with Fabrizio Ferretti, Chiara Sboarina, Clara Tattoni, Alfonso Vitti, Paolo Zatelli, Francesco Geri and Enrico Pompei the Italian Kingdom Forest Map of 1936 that represents 1936 Italian forest cover extension and features and can be downloaded at the address: <http://carta1936.dicam.unitn.it/>

3.4 Software and Technology transfer

Biomassfor, A GIS GRASS extension to assess the exploitability of forest biomass residues taking into account different (ground and cable) harvesting techniques, can be found here: <http://sourceforge.net/projects/biomassfor/>

The software r.green.biomassfor, A GIS GRASS add-on to assess the exploitability of forest biomass residues taking into account different (ground and cable) harvesting techniques, including the evaluation of ecosystem services can be found at the add-on page of GRASS. <https://grass.osgeo.org/grass70/manuals/addons/r.green.biomassfor.html>

EnviFate QGIS plugin: Open source tool for environmental risk analysis, EnviFate software is currently under development by DICAM of the University of Trento, Italy, in the frame of the project "Definizione di metodi standard e di strumenti applicativi informatici per il calcolo degli effetti dei fattori di perturbazione ai sensi della decisione 2011/484/UE, da impiegarsi nell'ambito della valutazione di incidenza - Inquinamento luminoso, inquinamento termico, rumore in acqua, dinamica inquinanti nel suolo, dispersione sedimenti marini", funded by the Italian Veneto Region. The project aims to make available to non-specialist operators a set of tools able to perform screening analysis to assess the risks of different possible environmental pollution sources in protected areas. Authors: Marco Ciolli (supervisor and scientific responsible of the project), Francesco Geri (Software development), Paolo Zatelli and Oscar Cainelli (Technical and scientific consultants) and Gianluca Salogni (Technical and scientific referent for Regione Veneto). **In 2018 ENVIFATE was included in "Progetti Strategici" of Regione Veneto.** GPL license v3. <https://bitbucket.org/fragit/envifate/>

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