

MARCO MATERAZZI – Curriculum Vitae

Biography and Academic career

- Master degree (cum laude) in Geological Science at the University of Camerino in 1992.
- Ph.D. fellowship (3 years, 1993-1995) on "Applied Geology, Geomorphology and Hydrogeology" at the University of Perugia (Italy).
- Post-doctorate fellowship (2 years) on applied geomorphology (1997-1998) at the University of Camerino (Italy).
- Since June 1st, 1999 - Researcher at the School of Environmental Sciences of the University of Camerino (Italy).
- Since January 1st, 2020 - Associate Professor at the School of Environmental Sciences of the University of Camerino (Geology Division) (Italy).
- Since January 9th, 2020 – Enabled, following a national selection procedure, to fill the role of full-time professor within the SSD Geo-04 (Physical Geography and Geomorphology)
- Component of the Marche region Geologists Council in the period 2013-2017.
- General Secretary of the AIGEO (Italian Association of Physical Geography and Geomorphology) from 2015 to 2018.
- Member of the CERG (European Centre on Geomorphological Hazards) with headquarters in Strasbourg, at the Council of Europe.
- Member of IAH (International Association of Hydrogeologists).
- Component of the "Water Resources" Commission of the Italian Geologists Council since 2016.
- Founding member of the Spinoff "GEOMORE" in 2016.
- President of the Bachelor degree in "Tecnologie innovative per i Beni Culturali – L43", based in Ascoli Piceno, since 2018.

Teaching and Mentoring Activities

The teaching activity, continuous since 1999, received excellent reviews by students and covered the following courses:

Bachelor Degree in "Geological Science"

- Idrogeologia (from 1999 to 2008)
- Geologia applicata e Idrogeologia (from 2010 to 2018)
- Rilevamento Geomorfologico (2001)
- Geomorfologia (2006; from 2007 to 2010)
- Geografia Fisica (from 2015 to 2016)
- Telerilevamento e Fotogeologia (from 2008 to 2010)
- Engineering Geology and Hydrogeology (since 2018 course held entirely in English)

Master Degree in "Geoenvironmental Resources and Risks" (courses held entirely in English)

- Groundwater resources (from 2006 to 2007)
- Groundwater resources and Hydrogeological Hazard (since 2011)

Other teaching activities concerned:

- Invited lectures in the framework of Post-graduate Masters at the University of Camerino:
 - o Post-graduate Master in "Design of reclamation and environmental restoration of polluted sites"
 - o Post-graduate Master in "Gestione integrata dei sistemi di qualità ambiente e sicurezza"

- Post-graduate Master in “Pianificazione e gestione delle aree protette”
 - Post-graduate Master in “GIS per la Governance del Territorio”
- Member of the "Teaching staff Mobility" as part of the Socrates/Erasmus Program with the Department of Geography - University of Oradea (Romania) (since 2001) and the Istitute dé Geographie de l' Université de Reims (France) since 2004. As part of these agreements, he held short courses in Romania in the years 2001-2002 and in France in 2006.

During more than twenty years of academic career he has been the supervisor of over 50 theses (Bachelor and Master degrees) and 6 Ph.D. students on topics related to Geomorphology, Applied Geomorphology and Hydrogeomorphology.

Institutional Positions

- Member of the Faculty Board of the Ph.D. in Earth Sciences of the University of Camerino from 2002 to 2006.
- Delegate of the Rector of the University of Camerino for sports activities since 2015.
- Local Coordinator of the National Project “PLS-Geology” (Piano Lauree Scientifiche - Geologia) from 2015 to 2018
- President of the Bachelor degree in “Tecnologie innovative per i beni culturali – L-43” based in Ascoli Piceno, since 2018.
- Member of the Faculty Board of the Ph.D. in "PHYSICS, EARTH AND MATERIALS SCIENCES" of the University of Camerino since 2019.

Research Activity

The scientific activity mainly deals with quaternary geomorphological dynamics and related geological risks (particularly in the Adriatic sector of central Italy) and landscape transformation triggered by human activity. Among the analyzed processes, particular care has been devoted to the study of deep and superficial mass movements, to the relationships between slope, fluvial and coastal dynamics and the activation and control factors of fast and linear erosion processes (badlands); of such processes, geological and geomorphological conceptual and numerical models have been defined.

Concerning the geomorphological risk he participated, between 2002 and 2012, to four project funded by MIUR (Italian Ministry of Education, Universities and Research) on issues related to soil erosion and slope dynamics with particular reference to gravitational phenomena. Moreover, in 2013, he was a consultant for the Italian company Bonatti for “Research, simulation and geological-engineering analysis of rainfalls impact on soil stratigraphic conditions related to the laying of the ductwork Pitgam-Nédon (France)”.

During more than 20 years of field activity, he has gained expertise in the field of geomorphological surveys and of basic and applied geomorphological mapping, participating personally or taking care of the preparation of geomorphological maps at different scales in different areas of central and southern Italy.

A more recent line of research concerns geo-archaeological studies. During the last 10 years, he collaborated with the Archaeological Superintendencies of Marche, Umbria, Lazio and Sicily, contributing to traditional historical-archaeological studies and researches; field surveys, integrated by geophysical surveys and aerial photo interpretation using drones, have been carried out in several sites of central and southern Italy, as Sabaudia (Lazio), Carsulae (Umbria), Maddalena di Muccia, Montelago, San Claudio-Urbisaglia-Villamagna, Potentia (Marche). In the last two years, important

studies were born following agreements with the archaeological parks of Agrigento, Selinunte and Vassallaggi (Sicily); these studies are still ongoing.

Over the last 10 years, he started to develop an important research field in the framework of the hydrogeomorphology, focused, in particular, to the relationship between surface hydrology and underlying fractured and porous aquifer systems in the Adriatic side of Central Italy. Following this objective, several research projects and agreements were joined at the local level with public and private institutions. These collaborations culminated in the participation, together with the Optimal Territorial Area Authority n.3 - Marche Centro-Macerata (AATO3), to the European project "Networking for Drinking Water Supply in the Adriatic Region" (DRINKADRIA), structured under the IPA Adriatic Cross-border Cooperation Programme. For the fulfillment of this research, a three-year Ph.D. scholarship, that reached the conclusion at the beginning of 2016, was funded.

The above studies became extremely relevant after the seismic events that hit central Italy since August 2016 and which strongly modified groundwater and surface water circulation in the area of the Sibillini Mountains. Within the framework of a new agreement between UNICAM and CIIP S.p.A. of Ascoli Piceno was then funded at post-doctoral fellowship (2 years) aimed at understanding hydrological and hydrogeological changes induced by the seismic sequence and their impact on water supply systems. These studies are currently being carried out through a new research project aimed at creating an important infrastructural work at a supra-regional level, which will allow the interconnection of existing aqueduct networks; this work will make it possible in the future to make up for any water crises linked to climatic and/or anthropic factors.

He is the author, as a whole, of more than 80 scientific publications on national and international journals and thematic volumes, other than numerous publications of geomorphological and hydrogeological mapping.

Besides, he is involved as a reviewer from the following international journals:

- a) Quaternary Science Reviews
- b) Quaternary Research
- c) Natural Hazards and Earth System Sciences
- d) Engineering, Hydro, Environmental Geology
- e) Journal of Asian Earth Science
- f) Italian Journal of Physical Geography and Geomorphology
- g) Catena

Research management and fundings

Following a list of the most important projects and contract of which he has been the scientific coordinator:

- Scientific coordinator (1998-1999) of field surveys and data processing for the editing of thematic maps (geomorphological, hydrogeological, hydrogeological risk and aquifers vulnerability to pollution) of "Gola della Rossa and Frasassi" Regional Park (35 k€).
- Scientific coordinator in 2005 of a contract between ATO3 Marche-Centro Macerata and University of Camerino for the study of the "Present and future groundwater resources availability in the ATO3 territory; identification of well-heads and springs protection areas" (25 K€).
- Scientific coordinator in 2006 of the hydrogeological study in the framework of the contract between ITALFERR and University of Camerino for the "*Geological and hydrogeological studies supporting the speeding up project of the Roma-Pescara railway*"

- Scientific coordinator in 2010 of a contract between ATO3 Marche-Centro Macerata and University of Camerino for the study of the “Identification of superficial and groundwater protection areas in the ATO3 territory” (85 K€).
- Scientific coordinator in 2011 of a contract between ATO4 Marche-Centro-Sud, Alto Piceno Maceratese and University of Camerino for the study of the “Identification of superficial and groundwater protection areas in the ATO4 territory” (85 K€).
- Scientific coordinator in 2011 of a contract between ATO5 Marche-Sud, Ascoli Piceno and University of Camerino for the study of the “Identification of superficial and groundwater protection areas in the ATO5 territory” (85 K€).
- Scientific coordinator in 2014 of the Local Task of the EU Project “DRINKADRIA” (Networking for Drinking Water Supply in Adriatic Region) in the framework of the IPA Adriatic Cross-border Cooperation Programme (Total budget 6.6 M€).
- Scientific coordinator in 2016 of a contract between UNICAM and CIIP S.p.A. (Ascoli Piceno) for “Hydrogeological surveys aimed at defining recharge and safeguard areas of some tapped springs (Article 94 of Legislative Decree 152/06) managed by C.I.I.P. S.p.A. (37 K€).
- Member in 2019 of the U.O. of the Project “ARCH - Advancing Resilience of Historic Areas against Climate-related and other Hazards” funded in the framework of the Horizon 2020 Program, Call: H2020-LC-CLA-2018-2019-2020 (Building a low-carbon, climate-resilient future: climate action in support of the Paris Agreement) (350 K€).
- Scientific coordinator in 2020 of a contract between UNICAM and CIIP S.p.A. (Ascoli Piceno) for geological, geomorphological and hydrogeological studies supporting the realization of the “Anello acquedottistico dei Sibillini interconnessione ATO 3-4-5” (420K€).

Main scientific publications (last 10 years)

1. BUFALINI, M., MATERAZZI, M., DE AMICIS, M., PAMBIANCHI, G. (2021). From traditional to modern 'full coverage' geomorphological mapping: a study case in the Chienti river basin (Marche region, central Italy). In JOURNAL OF MAPS - ISSN:1744-5647, DOI: 10.1080/17445647.2021.1904020, pp.1-12.
2. BUCCOLINI M., BUFALINI M., COCO L., MATERAZZI M., PIACENTINI T. (2020). Small catchments evolution on clayey hilly landscapes in Central Apennines and northern Sicily (Italy) since the Late Pleistocene. Geomorphology. DOI: [10.1016/j.geomorph.2020.107206](https://doi.org/10.1016/j.geomorph.2020.107206).
3. GENTILUCCI M., MATERAZZI M., PAMBIANCHI G., BURT P., GUERRIERI G. (2020). Temperature variations in Central Italy (Marche region) and effects on wine grape production. DOI: 10.1007/s00704-020-03089-4. Theoretical And Applied Climatology - ISSN:0177-798X
4. GIACOPETTI, M., MATERAZZI M., PAMBIANCHI G. & POSAVEC K. (2019). A combined approach for a modern hydrogeological mapping: the case study of Tennacola stream catchment (central Apennine, Italy), Journal of Maps, DOI: 10.1080/17445647.2019.1574621.
5. GENTILUCCI M., MATERAZZI M., PAMBIANCHI G., BURT P., GUERRIERI G. (2019). Assessment of Variations in the Temperature-Rainfall Trend in the Province of Macerata (Central Italy), Comparing the Last Three Climatological Standard Normals (1961–1990; 1971–2000; 1981–2010) for Biosustainability Studies. Environmental Processes 6, 2, 391–412. DOI: 10.1007/s40710-019-00369-8.
6. GIACOPETTI, M., FABBROCINO S., IANNI C., MATERAZZI M., PAMBIANCHI G. (2019). Co-seismic and post-seismic changes in groundwater discharge: first results from the epicentral region of the Central Italy earthquake 2016. Rend. Online Soc. Geol. It., Vol. 47, 52-57. DOI: 10.3301/ROL.2019.10.
7. BUFALINI M., FARABOLLINI P., FUFFA E., MATERAZZI M., PAMBIANCHI G., TROMBONI M. (2019). The significance of recent and short pluviometric time series for the assessment of flood hazard in the context of climate change: examples from some sample basins of the Adriatic Central Italy. AIMS GEOSCIENCES, 5(3): 568–590. DOI: 10.3934/geosci.2019.3.568
8. VILLANI F., CIVICO R., PUCCI S., et al., (2018). A database of the coseismic effects following the 30 October 2016 Norcia earthquake in Central Italy. SCIENTIFIC DATA, vol. 49, ISSN: 2052-4463, doi: 10.1038/sdata
9. ZAMBRANO M., TONDI E., MANCINI L., LANZAFAME G., TRIAS F. X., ARZILLI F., MATERAZZI M., TORRIERI S. (2018). Fluid flow simulation and permeability computation in deformed porous carbonate grainstones. Advances In Water Resources, vol. 115, p. 95-111, ISSN: 0309-1708, doi: <https://doi.org/10.1016/j.advwatres.2018.02.016>
10. VILLANI F., CIVICO R., PUCCI S., et al. (2018). Surface ruptures following the 30 October 2016 Mw 6.5 Norcia earthquake, central Italy. JOURNAL OF MAPS, vol. 14, p. 151-160, ISSN: 1744-5647, doi: 10.1080/17445647.2018.1441756
11. ZAMBRANO, M., TONDI, E., MANCINI, L., ARZILLI, F., LANZAFAME, G., MATERAZZI, MARCO, TORRIERI, S., ZAMBRANO CARDENAS, MILLER DEL CARMEN (2017). 3D Pore-network quantitative analysis in deformed carbonate grainstones. MARINE AND PETROLEUM GEOLOGY, vol. 82, p. 252-264, ISSN: 0264-8172, doi: 10.1016/j.marpetgeo.2017.02.001
12. GIACOPETTI, M., MATERAZZI, M., PAMBIANCHI, G., POSAVEC, K. (2017). Analysis of mountain springs discharge time series in the Tennacola stream catchment (central Apennine, Italy). ENVIRONMENTAL EARTH SCIENCES, vol. 76, p. 1-11, ISSN: 1866-6280, doi: 10.1007/s12665-016-6339-1
13. BOTTARI C., ARINGOLI D., CARLUCCIO R., CASTELLANO C., D'AJELLO CARACCILO F., GASPERINI M., MATERAZZI M., NICOLOSI I., PAMBIANCHI G., PIERUCCINI P., SEPE V., URBINI S., VARAZI F. (2017). Geomorphological and geophysical investigations for the characterization of the Roman Carsulae site (Tiber basin, Central Italy). JOURNAL OF APPLIED GEOPHYSICS, vol. 143, p. 74-85, ISSN: 0926-9851, doi: 10.1016/j.jappgeo.2017.03.021
14. POSAVEC, K., GIACOPETTI, M., MATERAZZI, M., BIRK, S. (2017). Method and Excel VBA Algorithm for Modeling Master Recession Curve Using Trigonometry Approach. GROUND WATER, vol. 55, p. 891-898, ISSN: 0017-467X, doi: 10.1111/gwat.12549
15. GENTILI, B., PAMBIANCHI, G., ARINGOLI, D., MATERAZZI, M., GIACOPETTI, M. (2017). Pliocene-Pleistocene geomorphological evolution of the Adriatic side of central Italy. GEOLOGICA CARPATHICA, vol. 68, p. 6-18, ISSN: 1335-0552, doi: 10.1515/geoca-2017-0001
16. GIACOPETTI, M., CRESTAZ, E., MATERAZZI, M., PAMBIANCHI, G., POSAVEC, K. (2016). A Multi-Model Approach Using Statistical Index and Information Criteria to Evaluate the Adequacy of the Model

- Geometry in a Fissured Carbonate Aquifer (Italy). *WATER*, vol. 8, p. 271-1-271-25, ISSN: 2073-4441, doi: 10.3390/w8070271
17. POSAVEC, K., PAMBIANCHI, G., MATERAZZI, M., ARINGOLI, D., GIACOPETTI, M. (2016). Groundwater recharge estimation using spring hydrographs: the case of the Tennacola carbonate aquifer (central Apennine, Italy). *RENDICONTI ONLINE DELLA SOCIETÀ GEOLOGICA ITALIANA*, vol. 41, p. 60-63, ISSN: 2035-8008, doi: 10.3301/ROL.2016.93
 18. PAMBIANCHI, G., MATERAZZI, M., GENTILI, B., SCIARRA, N., IPPOLITO, M., ARINGOLI, D. (2016). Hazard assessment of a complex landslide: the case of Vestea (Abruzzo, Italy). *RENDICONTI ONLINE DELLA SOCIETÀ GEOLOGICA ITALIANA*, vol. 41, p. 112-115, ISSN: 2035-8008, doi: 10.3301/ROL.2016.106
 19. ARINGOLI, D., FARABOLLINI, P., GIACOPETTI, M., MATERAZZI, M., PAGGI, S., PAMBIANCHI, G., PIERANTONI, P. P., PISTOLESI, E., PITTS, A., TONDI, E. (2016). The August 24th 2016 Accumoli earthquake: surface faulting and Deep-Seated Gravitational Slope Deformation (DSGSD) in the Monte Vettore area. *ANNALS OF GEOPHYSICS*, vol. 59, p. 1-8, ISSN: 2037-416X, doi: 10.4401/ag-7199
 20. GIACOPETTI, M., MATERAZZI, M., PAMBIANCHI, G., ARINGOLI, D., FARABOLLINI, P. (2015). Geomorphological evolution of the middle-lower reach of the Tronto river (central Italy), during the last 200 years: impacts on flood hazard. *RENDICONTI ONLINE DELLA SOCIETÀ GEOLOGICA ITALIANA*, vol. 33, p. 48-52, ISSN: 2035-8008, doi: 10.3301/ROL.2015.12
 21. ARINGOLI, D., BUCCOLINI M, COCO L, DRAMIS F, FARABOLLINI, P., GENTILI, B., GIACOPETTI, M., MATERAZZI, M., PAMBIANCHI, G. (2015). The effects of in-stream gravel mining on river incision: an example from Central Adriatic Italy. *ZEITSCHRIFT FÜR GEOMORPHOLOGIE*, vol. 59, p. 95-107, ISSN: 0372-8854, doi: http://dx.doi.org/10.1127/zfg_suppl/2015/S-59206
 22. MATERAZZI M, ARINGOLI D, PAMBIANCHI G, GENTILI B, GIACOPETTI M (2015). Deep Seated Gravitational Slope Deformations and Large Landslides Interfering with Fluvial Dynamics; Examples from Central Apennines (Italy). In: Lollino et al., (eds.). *Engineering Geology for Society and Territory - Volume 2*. vol. 2, p. 593-597, Heidelberg:Springer International Publishing Switzerland, ISBN: 9783319090566, doi: 10.1007/978-3-319-09057-3_98
 23. FARABOLLINI P, ARINGOLI D, MATERAZZI M, PAMBIANCHI G (2015). Geoturistic hazard in hypogeum karst landscape: an example from Frasassi Cave (central Italy). In: Lollino et al., (eds.). *Engineering Geology for Society and Territory – Volume 8*. p. 273-277, Heidelberg:Springer, ISBN: 9783319094076
 24. ARINGOLI D, MATERAZZI M, GENTILI B, PAMBIANCHI G, SCIARRA N (2015). Slope stability integrate analyses: the study case of Mount Falcone (Central Italy). In: Lollino et al. (eds.). *Engineering Geology for Society and Territory – Volume 2*. p. 1371-1376, Heidelberg:Springer International Publishing Switzerland, ISBN: 9783319090566
 25. ARINGOLI D., GENTILI B., MATERAZZI M., PAMBIANCHI G., FARABOLLINI P. (2014). Il ruolo della gravità nell'evoluzione geomorfologica di un'area di falesia: il caso del Monte Conero (Mare Adriatico, Italia centrale). *STUDI COSTIERI*, vol. 22, p. 19-32, ISSN: 1129-8588
 26. BUCCOLINI M, MATERAZZI M, ARINGOLI D, GENTILI B, PAMBIANCHI G, SCARCIGLIA F. (2014). Late Quaternary catchment evolution and erosion rates in the Tyrrhenian side of central Italy. *GEOMORPHOLOGY*, vol. 204, p. 21-30, ISSN: 0169-555X, doi: 10.1016/j.geomorph.2013.07.023
 27. ARINGOLI, D., CAVITOLE P., FARABOLLINI, P., et al. (2014). Morphotectonic characterization of the quaternary intermontane basins of the Umbria-Marche Apennines (Italy). *RENDICONTI LINCEI. SCIENZE FISICHE E NATURALI*, vol. 25, p. 111-128, ISSN: 2037-4631, doi: 10.1007/s12210-014-0330-0
 28. FUBELLI G, DRAMIS F, CALDERONI G, CILLA G, MATERAZZI M, MAZZINI I, SOLIGO M (2013). Holocene aggradation/erosion of a tufa dam at Triponzo (central Italy). *GEOGRAFIA FISICA E DINAMICA QUATERNARIA*, vol. 36, p. 259-266, ISSN: 0391-9838, doi: 10.4461/GFDQ.2013.36.0
 29. ARINGOLI D., GENTILI B., MATERAZZI M., PAMBIANCHI G., SCIARRA N. (2013). DSGSDs induced by post glacial decompression in central Apennine (Italy). In: Claudio Margottini Paolo Canuti Kyoji Sassa. *LANDSLIDE SCIENCE AND PRACTICE*. p. 417-423, BERLIN:Springer, ISBN: 9783642313363, doi: 10.1007/978-3-642-31337-0_54
 30. ARINGOLI D., BUCCOLINI M., MATERAZZI M., GENTILI B., PAMBIANCHI G, SCIARRA N. (2013). Large landslides in sea-cliff areas of the central Adriatic coast (Italy). In: Claudio Margottini Paolo Canuti Kyoji Sassa. *Landslide Science and Practice*. vol. 5, p. 129-133, berlin:Springer Berlin Heidelberg, ISBN: 9783642314261, doi: 10.1007/978-3-642-31427-8_16

31. FARABOLLINI P., ARINGOLI D., MATERAZZI M., PAMBIANCHI G., PIERANTONI P., SCALELLA G., TONDI E. (2012). Il terremoto aquilano del 6 aprile 2009: rilievi geologici, geologici del Quaternario, geomorfologici di superficie e considerazioni per la prevenzione del rischio sismico e per la ricostruzione post-terremoto. *GEOLOGIA TECNICA & AMBIENTALE*, vol. 2012, p. 58-74, ISSN: 1722-0025
32. ARINGOLI D, FARABOLLINI P, GALINDO-ZALDIVAR J, GENTILI B, GIANO S.I., LÒPEZ-GARRIDO A.C, MATERAZZI M, PAMBIANCHI G, PEDRERA A, RUARO P, RUIZ-CONSTÀ N A, SANZ DE GALDEANO C, SAVELLI D, TONDI E, TROIANI F (2012). Morphotectonic and sedimentary infill of the Colfiorito, Norcia, Castelluccio and Leonessa basins (Central Apennines, Italy). *RENDICONTI ONLINE DELLA SOCIETÀ GEOLOGICA ITALIANA*, vol. 21, p. 1228-1230, ISSN: 2035-8008
33. DRAMIS F., ARINGOLI D., BISCI C., CANTALAMESSA G., COLTORTI M., FARABOLLINI P., GENTILI B., MATERAZZI M., NESCI O., PAMBIANCHI G., PIERUCCINI P., SAVELLI D., TROIANI F. (2011). La Costa delle Marche. In: Ginesu S. (a cura di). *La Costa d'Italia*. p. 379-392, SASSARI: Carlo Delfino Editore, ISBN: 9788871385815
34. ARINGOLI, Domenico, GENTILI, Bernardino, MATERAZZI, Marco, PAMBIANCHI, Gilberto (2011). Mass movement in adriatic central Italy: activation and evolutive control factors.. In: Werner E.D. et al.. *Landslides: Causes, Types and Effects*. p. 1-71, NEW YORK: NOVA SCIENCE PUBLISHERS, ISBN: 9781607412588
35. ARINGOLI D, GENTILI B, MATERAZZI M., PAMBIANCHI G. (2010). Deep seated gravitational slope deformations in active tectonics areas of the Umbria-Marche Apennine (central Italy). *GEOGRAFIA FISICA E DINAMICA QUATERNARIA*, vol. 33, p. 127-140, ISSN: 0391-9838
36. MATERAZZI M., GENTILI B, ARINGOLI D, FARABOLLINI P, PAMBIANCHI G. (2010). Elements of slope and fluvial dynamics as evidence of late Holocene climatic fluctuations in the central Adriatic sector, Italy. *GEOGRAFIA FISICA E DINAMICA QUATERNARIA*, vol. 33, p. 193-204, ISSN: 0391-9838
37. ARINGOLI D, FARABOLLINI P, GENTILI B, MATERAZZI M., PAMBIANCHI G. (2010). Examples of geoparks and geoconservation strategies from the Southern Umbro-Marchean Apennines (central Italy). *GEOACTA*, vol. 3, p. 153-166, ISSN: 1721-8039
38. ANGILERI S., AUCELLI P.P.C., BUCCOLINI M., CONFORTI M., CONOSCENTI C., DEL MONTE M., FORLEO M.B., MARINO D., MARUCCI A., MATERAZZI M., ROSSKOPF C.M., VERGARI F. (2010). An integrated geomorphologic-economic approach for valuing direct damage in agricultural areas caused by erosion processes in Mediterranean environment (Italy). In: Chalov RS, Chernysh AF. *Water erosion: slope processes and matter movement*. p. 15-17, Moscow:Faculty of Geography - LMSU, ISBN: 9785895751619
39. AGNESI V., ARINGOLI D., BUCCOLINI M., CAPPADONIA C., DELLA SETA M., DEL MONTE M., DI MAGGIO C., FAZZINI M., MATERAZZI M., PAMBIANCHI G. (2010). Geomorphological evolution and soil erosion rate in two clayey small catchments of central and island Italy during the last 15,000 years. In: Chalov R.S., Chernysh A.F.. *Slope processes and Matter Movement*. p. 10-15, Moscow:Faculty of Geography - LMSU, ISBN: 9785895751619
40. ARINGOLI D., CAPPADONIA C., CONOSCENTI C., DELLA SETA M., DEL MONTE M., MATERAZZI M., ROTIGLIANO E., VERGARI F. (2010). Two geostatistical approaches for assessing landslide susceptibility in Italian Apennines. In: Chalov RS, Chernysh AF. *Slope Processes and Matter Movement*. p. 18-22, Moscow:Faculty of Geography - LMSU, ISBN: 9785895751619
41. BUCCOLINI M, GENTILI B, MATERAZZI M, PIACENTINI T (2010). Late quaternary geomorphological evolution and erosion rates in the clayey peri-Adriatic belt (central Italy). *GEOMORPHOLOGY*, vol. 116, p. 145-161, ISSN: 0169-555X