PROF. VINICIO MANZI, PH.D

PH.D IN SEDIMENTOLOGY

ASSOCIATE PROFESSOR IN SEDIMENTARY GEOLOGY AND STRATIGRAPHY*

** SSD GEO/02 GEOLOGIA STRATIGRAFICA E SEDIMENTOLOGICA*

> ***Earth Science Unit***
> *Department of Chemistry, Life Sciences and Environmental Sustainability*
> *University of Parma*
> *Parco Area delle Scienze 157/A - 43124 Parma (PR), Italy*

> ***CIMAN - Centro Interuniversitario di Magnetismo Naturale***
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August 21

EXPERIENCE – EDUCATION

Oct 2014	-	now	**Associate Professor, permanent position at the Parma University**, **Department of Chemistry, Life Science and Environmental Sustainability** Parma, Italy.
2010	-	2014	Researcher, permanent position at the **Parma University**
2007	-	2010	Grant at the **Parma University**, Department of Earth Science, Parma, Italy.
2003	-	2007	Researcher position at the **Parma University**, Department of Earth Science, Parma, Italy.
2002	-	2003	Grant at the **Parma University**, Department of Earth Science, Parma, Italy.
2001	-	2010	Applied geologist at the **Emilia Romagna Region**. Technical Survey, Modena, Italy.
1998	-	2001	*Ph.D. in sedimentology* at the **Bologna University** « Physical stratigraphy, microscopic sedimentological analysis and magnetostratigraphic characterization of the deposits related to the Messinian salinity crisis»
1997	-		Degree at the **Bologna University** «facies analysis of the Messinian post-evaporitic unit, mostly siliciclastic coarse-grained fluvio-deltaic deposits, of the eastern Romagna Apennines»

RESEARCH INTERESTS, KEY WORDS

Messinian salinity crisis / Evaporite sedimentology / Geobiology / Gravity flow sedimentology / Turbidites / Integrated Stratigraphy / Paleomagnetism / High-frequency cyclostratigraphy / Isotope geochemistry / evolution of the Apennine-Maghrebian orogen / Hydrogeological hazards
Integrated monitoring systems / Mars sulphates

RESEARCH LINES

The main researches have been focused on the Messinian salinity crisis, one of the most amazing geological issues. The complexity of this scientific problem has been faced through multidisciplinary studies comprising:

- **Messinian salinity crisis,** complete revision of the chronostratigraphic framework for the Messinian salinity crisis in the Mediterranean (*e.g. CIESM, 2008; Gennari et al., 2013; Manzi et al., 2013; 2016; 2018; Roveri et al., 2008;*)
- **sedimentology of the evaporites**, facies analysis of sulfate, carbonate and halite deposits, both primary and clastics (*e.g. Lugli et al., 2007; 2010; 2013; 2015; Manzi et al., 2005; 2009; 2016; Roveri et al., 2008*)
- **geomicrobiology of the evaporites** relationships between evaporites and microbial communities (*e.g. Panieri et al., 2008; 2010; Dela Pierre et al., 2014; Isaji at al., 2017*)
- **sedimentology of hybrid deposits**, facies analysis of mixed evaporitic-terrigenous and gypsiferous-carbonate deposits (*e.g. Manzi et al., 2011*);
- **integrated stratigraphy,** integrated analysis based on physical stratigraphy, cyclostratigraphy, biostratigraphy, magnetostratigraphy, sequence stratigraphy (*e.g. Manzi et al., 2007; 2016; Roveri et al., 2008; 2009*)
- **isotope geochemistry,** ^{13}C, ^{18}O, ^{34}S, $^{87}Sr/^{86}Sr$, $^{187}Os/^{188}Os$ isotopes of evaporites and associated deposits (*Kuroda et al., 2016; Lugli et al., 2007; 2010; Reghizzi et al., 2017; Roveri et al., 2014*)
- **high frequency cyclicity on evaporites,** study of the short-term modulation of evaporite deposits (*Manzi et al., 2012*)
- **paleomagnetism,** magnetic properties of sediments for integrated stratigraphy (*e.g. Gennari et al., 2013; Manzi et al., 2007)*
- **siliciclastic sedimentology,** facies analysis on shelf and fluvio-deltaic siliciclastic deposits (*e.g. Bassetti et al., 2004; Manzi, 1997; Roveri et al., 2008)*
- **Mars sulphate,** providing Earth analogs for interpretation of evaporites on Mars (*e.g. Sgavetti et al., 2008*)
- **turbitites,** facies analyses and basin analysis on the Marnoso-arenacea (Miocene, Northern Apennines) and Laga (Messinian, Central Apennines) turbiditic systems *(e.g. Roveri et al., 2002)*

ASSIGNMENTS – TEACHING

2011	-	now	Teaching Class: Geological mapping (12 CFU) – First Cycle Degree in "Geological Science" at the University of Parma
2014	-	now	Member of the Paritetical Commission for the First Cycle Degree in "Geological Science" at the University of Parma
2017	-	now	President of the Paritetical Commission of the Department of Chemistry, Life Science and Environmental Sustainability, University of Parma
2010	-	now	Member of the College of Teachers the PhD in Earth Science at the Parma University
2012	-	now	Scientific Manager of the Parma University at the "Centro Interuniversitario di Magnetismo delle Rocce - Alpine Laboratory of paleomagnetism (ALP)" Via Madonna dei Boschi 76, - 12016 Peveragno (CN), Italy.
2013	-	2016	Member of the College of Teachers of the Spinner 2013 PhD; EGEST projects "Geological surface effects of the 2012 Emilian earthquake"

AWARDS, HONORS, NOTEWORTHY FACTS

- Award of the National Scientific Qualification 2016 (**ASN – Abilitazione Scientifica Nazionale**) as **Full Professor**. Validity: from 2017 April 5th to 2023 April 5th.
- **Norman Falcon Award 2017**. Roveri et al. (2016) The Messinian salinity crisis: open problems and possible implications for Mediterranean petroleum systems. Petroleum Geoscience, 22-4, 283-290.
- **Marine Geology most cited paper *published since 2012 and amongst the 3 most cited papers published in 2014 and cited in 2015-2016*).** Roveri et al. (2014) The Messinian Salinity Crisis: Past and future of a great challenge for marine sciences. Marine Geology, 352, 25-58.
- **Terra Nova most cited article published in 2013 or 2014 (source ISI Web of Science).** Manzi et al. (2013) Age refinement of the Messinian salinity crisis onset in the Mediterranean. Terra Nova, 25, 315-322.
- **Basin Research 10th most-accessed articles published in 2015 and 2016.** Manzi et al. (2016) The Messinian salinity crisis in Cyprus: a further step towards a new stratigraphic framework for Eastern Mediterranean. Basin Research. 28, 207-236.
- **Marine Geology 15th most cited paper.** Roveri et al. (2014) High-resolution strontium isotope stratigraphy of the Messinian deep Mediterranean basins: implications for marginal to central basins correlation. Marine Geology, 349, 113-125.

PARTICIPATION TO NATIONAL AND INTERNATIONAL PROGRAMS

2018	-	now	Collaboration on behalf of the Protocol of International University Cooperation for Educational and Scientific Purposes between the University of Parma and the Polytechnic University of Tirane (Albania)
2016	-	2017	Member of the Management Committee - COST Action CA15103 "Uncovering the Mediterranean salt giant (MEDSALT).
2015	-	2017	ANR MRSEI 2015 - Uncovering the Mediterranean Salt Giant Principal Investigator: Giovanni Aloisi, CNRS, Laboratoire d'Océanographie et du Climat, Expérimentations et approches numériques Boîte 100 - PARIS, France.
2014	-	2017	PETROBRAS Project "Sedimentology and stratigraphy of evaporitic deposits (Messinian salinity crisis, Mediterranean Basin)." PI: M. Roveri, Univ. of Parma.
2013	-	2014	Main Proponent of the ECORD/ICDP Magellan Plus Workshop Series Program Deep-sea Record of Mediterranean Messinian events: DREAM I and DREAM II.
2011	-	2014	THALIS program "The record the Messinian Salinity Crisis in the Eastern Mediterranean: causes and palaeoenvironmental impact and consequences." PI: V. Karakitsios. National And Kapodistrian University Of Athens
2009	-	2011	PRIN2008 Project "High-resolution stratigraphy, palaeoceanography and palaeoclimatology of the Mediterranean area during the Messinian salinity crisis" PI: M. Roveri, University of Parma.
2007	-	2009	PRIN2006 Project "Origin, timing and facies distribution of the Messinian Salt deposits in the basins of the central Mediterranean area (Sicily, Calabria and Tuscany) and their larger-scale implications for the Messinian salinity crisis" PI: M. Roveri, University of Parma.
2005	-	2007	PRIN2004 Project " La tettonica del sale in vari contesti geodinamici, interpretazione sismica, analisi stratigrafiche, strutturali, petrografiche-sedimentologiche e modellizzazione analogica: casi di studio del cuneo orogenico della Calabria ionica, Bacino Balearico, Tirreno, margine NW dell'Africa, Zagros-Golfo Persico" PI: E. Costa, University of Parma.
2004	-	2006	PRIN2003 Project "The late Messinian Lago Mare event: high-resolution stratigraphy, tectonic and climatic control on high-frequency paleoenvironmental changes related to the final stage of the Messinian Salinity Crisis of the Mediterranean area" PI: M. Roveri, University of Parma.

2001	-	2003	PRIN2000 "The events related to the Messinian salinity crisis of the Apennines foredeep: regional synthesis of outcrop and subsurface and implication at the Mediterranean scale". PI: F. Ricci Lucchi, University of Bologna.

REFEREEING, EXPERTISE, DIFFUSION OF KNOWLEDGE

REVIEWER

- Scientific refereeing of international journals:

> Chemical Geology
> Egyptian Journal of Petroleum
> EPSL
> Geoacta
> Geobios
> Geology
> G^3
> Geosciences
> Geosciences Journal
> Geoscience Frontiers
> Global and Planetary Change
> Journal of Marine Petroleum Geology
> Marine Geology
> Minerals
> Palaeo3
> Petroleum Geoscience
> Quaternary Research
> Neues Jahrbuck für Geologie und Paläontologie
> Rivista, Italiana di Paleontologia e Stratigrafia
> Sedimentary Geology
> Sedimentology
> Tectonophysics.

EDITOR

- 2008 - Editor of the special issue on Stratigraphy journal: Manzi V. et al. (eds), 2008. "The Messinian salinity crisis revisited-II: new views of a vanished ocean".
- Since 2019 - Editorial Board member of "*Sustainability*".

CONGRESS ORGANIZATION

- Organization of the RCMNS. Interim Colloquium "The Messinian salinity crisis revisited-II" Parma (Italy), 7th-9th September 2006
- Participation to the CIESM Workshop 33 "Messinian Evaporites: from Mega-deposits to Micro-biology." Almeria, Spain, 7 – 10 November 2007.
- Chair of the scientific session "7.I ***Evaporites on Earth and beyond*** chaired by: Lugli S., Bąbel M., and Manzi V." at the 34th meeting IAS – Rome 10-13 September 2019.

SCIENTIFIC PRODUCTION ABRIDGED VERSION

citation metrics by Elsevier SCOPUS			**Peer-review publications**	
Scientific articles	**H-index**	**total citations**	**Scientific articles**	**First and co-first authorship**
70	**30**	**2712**	**76**	**20**

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PUBLICATIONS

Complete list of publications is available at:
Official website: https://scvsa-servizi.campusnet.unipr.it/persone/vinicio.manzi
Personal website: https://sites.google.com/site/viniciomanzi/
ISI Thomson ResearcherID: http://www.researcherid.com/rid/F-7033-2011
SCOPUS (author ID 6507608103): http://www.scopus.com/authid/detail.url?authorId=6507608103

PEER-REVIEW SCIENTIFIC ARTICLES AND INDEXED PUBLICATIONS

1. **Manzi, V.**, Gennari, R., Lugli, S., Reghizzi, M., Roveri, M. (**2021**) A New Messinian $^{87}Sr/^{86}Sr$ Curve for the Ain El Beida Section (Morocco): An Atlantic Perspective of the Mediterranean Salinity Crisis. **Paleoceanography and Paleoclimatology**, 36-7, e2021PA004227.
2. Rossi, F.P., Schito, A., **Manzi, V.**, Roveri, M., Corrado S., Lugli, S. (**2021**) Paleo-thermal constraints on the origin of native diagenetic sulfur in the Messinian evaporites: The Northern Apennines foreland basin case study (Italy). **Basin Research**, 33, 2500-2516
3. **Manzi V.**, Argnani, A., Corcagnani. A., Lugli, S., Roveri, M. (**2020**) The Messinian salinity crisis in the Adriatic foredeep: evolution of the largest evaporitic marginal basin in the Mediterranean. **Marine and Petroleum Geology**, 115, 104288.
4. Roveri, M., Lugli, S., **Manzi, V.**, Reghizzi, M., Rossi, F.P. (**2020**) Stratigraphic relationships between shallow-water carbonates and primary gypsum: insights from the Messinian succession of the Sorbas Basin (Betic Cordillera, Southern Spain). **Sedimentary Geology**, 404, 105678.
5. Isaji, Y., Yoshimura, T., Kuroda, J., Tamenori, Y., Jiménez-Espejo, F.J., Lugli, S., **Manzi, V.**, Roveri, M., Kawahata, H., Ohkouchi, N. (**2019**) Biomarker records and mineral compositions of the Messinian halite and K–Mg salts from Sicily. **Progress in Earth and Planetary Science**, 6 (1), art. no. 60.
6. Isaji, Y., Kawahata, H., Takano, Y., Ogawa, N.O., Kuroda, J., Yoshimura, T., Lugli, S., **Manzi, V.**, Roveri, M., Ohkouchi, N. (**2019**) Diazotrophy drives primary production in the organic-rich shales deposited under a stratified environment during the messinian salinity crisis (Vena Del Gesso, Italy). **Frontiers in Earth Science**, 7, art. no. 85.
7. Isaji, Y., Kawahata, H., Ogawa, N.O., Kuroda, J., Yoshimura, T., Jiménez-Espejo, F.J., Makabe, A., Shibuya, T., Lugli, S., Santulli, A., **Manzi, V.**, Roveri, M., Ohkouchi, N. (**2019**) Efficient recycling of nutrients in modern and past hypersaline environments. **Scientific Reports**, 9 (1), art. no. 3718.
8. Roveri, M., Gennari, R., Persico, D., Rossi, F.P., Lugli, S., **Manzi, V.**, Reghizzi, M., Taviani, M. (2019) A new chronostratigraphic and palaeoenvironmental framework for the end of the Messinian salinity crisis in the Sorbas Basin (Betic Cordillera, southern Spain). **Geological Journal**, 54 (3), pp. 1617-1637.
9. Roveri, M., Gennari, R., Ligi, M., Lugli, S., **Manzi, V.**, Reghizzi, M. (**2019**) The synthetic seismic expression of the Messinian salinity crisis from onshore records: Implications for shallow- to deep-water correlations. **Basin Research**, DOI: 10.1111/bre.12361
10. Gennari R., Lozar F., Turco E., Dela Pierre F., Lugli S., **Manzi V.**, Natalicchio M. Roveri M., Taviani M. (**2018**) Integrated stratigraphy and paleoceanographic evolution of the pre-evaporitic phase of the Messinian salinity crisis in the Eastern Mediterranean as recorded in the Tokhni section (Cyprus island). **Newsletters on Stratigraphy**, 51-1, 33-55.
11. **Manzi V.**, Gennari R., Lugli S., Persico D., Reghizzi M., Roveri M., Schreiber B.C., Calvo R., Gavrieli I., Gvirtzman Z. (**2018**) The onset of the Messinian salinity crisis in the deep Eastern Mediterranean basin. **Terra Nova**. DOI: 10.1111/ter.12325.

12. Reghizzi, M., Lugli, S., **Manzi, V.**, Rossi, F.P., Roveri, M. (**2018**) Orbitally Forced Hydrological Balance During the Messinian Salinity Crisis: Insights from Strontium Isotopes (87Sr/86Sr) in the Vena del Gesso Basin (Northern Apennines, Italy). **Paleoceanography and Paleoclimatology**, 33 (7), pp. 716-731.

13. Gvirtzman Z., **Manzi V.**, Calvo R., Gavireli I., Gennari R., Lugli S., Reghizzi M., Roveri M. (**2017**) Intra-Messinian truncation surface in the Levant Basin explained by subaqueous dissolution. **Geology**, 45-10, 915-918.

14. Isaji Y., Kawahata H., Kuroda J., Yoshimura T., Ogawa N.O., Suzuki A., Shibuya T., Jimenez-Espejo F.J., Lugli S., Santulli A., **Manzi V.**, Roveri M., Ohkouchi N. (**2017**) Biological and physical modification of carbonate system parameters along the salinity gradient in shallow hypersaline solar salterns in Trapani, Italy. **Geochimica et Cosmochimica Acta**, 208, 354–367

15. Karakitsios V., Roveri M., Lugli S., **Manzi V.**, Gennari R., Antonarakou A., Triantaphyllou M., Agiadi K., Kontakiotis G., Kafousia N., De Rafelis M. (**2017**) A Record of the Messinian Salinity Crisis in the Eastern Ionian Tectonically Active Domain (Greece, Eastern Mediterranean). **Basin Research**, 29, 203-233.

16. Reghizzi M, Gennari R., Douville E., Lugli S., **Manzi V.**, Montagna P., Roveri M., Sierro F.J., Taviani M. (**2017**) Isotope stratigraphy ($^{87}Sr/^{86}Sr$, $\delta^{18}O$, $\delta^{13}C$) of the Sorbas basin (Betic Cordillera, Spain): Paleoceanographic evolution across the onset of the Messinian salinity crisis. **Palaeo3,** 469, 60-73.

17. Vasiliev I., Mezger E.M., Lugli S., Reichart G., **Manzi V.**, Roveri M. (**2017**) How dry was the Mediterranean during the Messinian salinity crisis. **Palaeo3**, 471, 120-133.

18. Kuroda J., Jimenez-Espejo F.J., Nozaki T., Gennari R., Lugli S., **Manzi V.**, Roveri M., Flecker R., Sierro F.J., Yoshimura T., Suzuky K., Ohkouchi N. (**2016**) Miocene to Pleistocene osmium isotopic records of the Mediterranean sediments. **Paleoceanography**, 31-1, 148-166.

19. **Manzi V.**, Lugli S., Roveri M., Dela Pierre F., Gennari R. Lozar F., Natalicchio M., Schreiber B.C., Taviani M., Turco E. (**2016**) The Messinian salinity crisis in Cyprus: a further step towards a new stratigraphic framework for Eastern Mediterranean. **Basin Research**. 28, 207-236.
10^{th} most-accessed articles of Basin Research, published in 2015 and 2016.

20. **Manzi V.**, Gennari R., Lugli S., Minelli N., Reghizzi M., Roveri M., Schreiber B.C., (**2016**) Comment on “Carbonate deposition and diagenesis in evaporitic environments: The evaporative and sulphur-bearing limestones during the settlement of the Messinian Salinity Crisis in Sicily and Calabria” by Caruso et al., 2015. Palaeo3, 429, 136-162. **Palaeo3**, 459, 585-596.

21. Roveri M., Gennari. R, Lugli S., **Manzi V.**, Minelli N., Reghizzi M., Riva A., Rossi M.E., Schreiber B.C., (**2016**) The Messinian salinity crisis: open problems and possible implications for Mediterranean petroleum systems. **Petroleum Geoscience**, 22-4, 283-290.
Norman Falcon Award 2017

22. Yoshimura T., Kuroda J., Lugli S., Tamenori Y., Ogawa N.O., Jimenez-Espejo F.J., Isaji Y., Roveri M., **Manzi V.**, Kawahata H. Ohkouchi N. (**2016**) An X-ray spectroscopic perspective on Messinian evaporite from Sicily: Sedimentary fabrics, element distributions, and chemical environments of S and Mg. **Geochemistry Geophysics Geosystems**, 17-4, 1383-1400.

23. Fauquette S., Bertini A., **Manzi V.**, Roveri M., Argnani A., Menichetti E. (**2015**) Reconstruction of the Northern and Central Apennines (Italy) palaeoaltitudes during the late Neogene from pollen data. **Review of Palaeobotany and Palynology**, 218, 117-126.

24. Lugli S., **Manzi V.**, Roveri M., Schreiber B.C. (**2015**) The Deep Record of the Messinian salinity crisis: evidence of a non-desiccated Mediterranean Sea. **Palaeo3**, 433, 201-218.

25. Dela Pierre F., Clari P., Natalicchio M., Ferrando S., Giustetto R., Lozar F., Lugli S., **Manzi V.**, Roveri M., Violanti D. (**2014**) Flocculent layers and bacterial mats in the mudstone interbeds of the Primary Lower Gypsum unit (Tertiary Piedmont basin, NW Italy): Archives of palaeoenvironmetal changes during the Messinian salinity crisis. **Marine Geology**, 355, 71-87.

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26. Kuroda J., Yoshimura T., Kawahate H. Jimenez-Espejo F.J., Lugli S., **Manzi V.**, Roveri M. (**2014**) Evaporation of marine basins: a review of evaporite formation and Messinian Salinity Crisis. **Journal of the Geological Society of Japan**, 120-6, 181–200.

27. Natalicchio M., Dela Pierre F., Lugli S., Lowenstein T.K., Feiner S.J., Ferrando S., **Manzi V.**, Roveri M., Clari P. (**2014**) Did the Late Miocene (Messinian) gypsum precipitate from evaporated marine brines? Insights from the Piedmont Basin (Italy). **Geology**, 42-3, 179-182

28. Roveri M., Flecker R., Krijgsman W., Lofi J., Lugli S., **Manzi V.**, Sierro F.J., Bertini A., Camerlenghi A., De Lange G., Govers R., Hilgen F.J., Hübscher C., Meijer P.Th., Stoica M. (**2014**) The Messinian Salinity Crisis: past and future of a great challenge for marine sciences. **Marine Geology**, 352, 25-28.
The most cited article published since 2012 and amongst the three most-cited papers published in 2014 and cited in 2015-2016 in Marine Geology.

29. Roveri M., **Manzi V.**, Bergamasco A., Falcieri F.M., Gennari R., Lugli S., Schreiber B.C. (**2014**) Dense shelf water cascading and Messinian canyons: a new scenario for the Mediterranean salinity crisis. **American Journal of Science**, 314, 751-784.

30. Roveri M., Lugli S., **Manzi V.**, Gennari R., Schreiber B.C. (**2014**) High-resolution strontium isotope stratigraphy of the Messinian deep Mediterranean basins: implications for marginal to central basins correlation. **Marine Geology**, 349, 113-125.
The 15th most cited article published since 2012 in Marine Geology.

31. Topper R.P.M., Lugli S., **Manzi V.**, Roveri M., Mejers P.Th. (**2014**) Precessional control of Sr ratios in marginal basins during the Messinian salinity crisis? **Geochemistry, Geophysics, Geosystems**, 15-5, 1926–1944.

32. Boschetti T., **Manzi V.**, Toscani L. (**2013**) Messinian Ca-Cl brines from Mediterranean basins: tracing diagenetic effects by Ca/Mg vs. Ca/Sr diagram. ***Aquatic Geochemistry***, 19, 195-208.

33. Gennari R., **Manzi V.**, Angeletti A., Bertini A., Biffi U., Ceregato A., Faranda C., Gliozzi E., Lugli S., Menichetti E., Rosso A., Roveri M., Taviani M. (**2013**) A shallow water record of the onset of the Messinian salinity crisis in the Adriatic foredeep (Legnagnone section, Northern Apennines). **Palaeogeography Palaeoclimatology Palaeoecology,** 386, 145.164.

34. Lugli S., Gennari R., Gvirtzman Z., **Manzi V.**, Roveri M., Schreiber B.C. (**2013**) Evidence of clastic evaporites in the canyons of the Levant basin (Israel): implications for the Messinian salinity crisis. **Journal Of Sedimentary Research,** 83, 942-954.

35. **Manzi V.**, Gennari R., Hilgen F., Krijgsman W., Lugli S., Roveri M., Sierro F.J. (2013) Age refinement of the Messinian salinity crisis onset in the Mediterranean. ***Terra Nova***, 25, 315-322.
Most cited article (Data from Thomson ISI Web of Science®) published in Terra Nova 2013 or 2014.

36. Minelli N., **Manzi V.**, Roveri M. (**2013**) The record of the Paleocene-Eocene Thermal Maximum in the Ager basin (Central Pyrenees, Spain). **Geologica Acta**, 11, 421-441.

37. Motta, M., Gabrieli, F., Corsini, A., **Manzi, V.**, Ronchetti, F., Cola, S. (**2013**) Landslide Displacement Monitoring from Multi-Temporal Terrestrial Digital Images: Case of the Valoria Landslide. In: Margottini, C., Canuti, P., Sassa, K. (eds) Landslide Science and Practice. Springer, Berlin, Heidelberg. 73-78.

38. Dela Pierre F., Clari P., Bernardi E., Natalicchio M., Costa E., Cavagna S., Lozar F., Lugli S., **Manzi V.**, Roveri M., Violanti D. (**2012**). Messinian carbonate-rich beds of the Tertiary Piedmont Basin (NW Italy): Microbially-mediated products straddling the onset of the salinity crisis. ***Palaeogeography Palaeoclimatology Palaeoecology***, 344-345, 78-93.

39. **Manzi V.**, Gennari R., Lugli S., Roveri M., Scafetta N., Schreiber B.C. (2012). High-frequency cyclicity in the Mediterranean Messinian evaporites: evidence for solar-lunar climate forcing. ***Journal of Sedimentary Research***, 82, 991-1005.

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40. Omodeo-Sale' S., Gennari R., Lugli S., **Manzi V.**, Roveri M. (**2012**) Tectonic and climatic control on the Late Messinian sedimentary evolution of the Nijar Basin (Betic Cordillera, Southern Spain), ***Basin Research***, 23, 1–24.

41. Dela Pierre F., Bernardi E., Cavagna S., Clari P., Gennari R., Irace A., Lozar F., Lugli S., **Manzi V.**, Natalicchio M., Roveri M., Violanti D. (**2011**) The record of the Messinian salinity crisis in the Tertiary Piedmont Bsin (NW Italy): the Alba section revisited. ***Palaeo3***, 310, 238-255.

42. **Manzi V.**, Gennari R., Lugli S., Roveri M., Schreiber B.C. (**2011**) The Messinian "Calcare di Base" (Sicily, Italy) revisited. ***Geological Society of America Bulletin***, 123, 347-370.

43. Lugli S., **Manzi V.**, Roveri M., Schreiber B.C. (**2010**) The Primary Lower Gypsum in the Mediterranean: A new facies interpretation for the first stage of the Messinian salinity crisis. ***Palaeo3***, 297, 83–99.

44. Panieri G., Lugli S., **Manzi V.**, Roveri M., Schreiber B.C., Palinska K. A. (**2010**) Ribosomal Rna gene fragments from fossilized Cyanobacteria identified in primary gypsum from the Late Miocene, Italy. ***Geobiology***, 8-2, 101-111.

45. Trua T., **Manzi V.**, Roveri M., Artoni A. (**2010**) The Messinian volcaniclastic layers of the Northern Apennines: evidence for the initial phases of the Southern Tyrrhenian spreading? ***Italian Journal of Geosciences***, 129-2, 269-279.

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