

Publication List

JCR Publications

- 1 Borisov, D.G., Frey, D.I., Ivanova, E.V., Dmitrevskiy, N.N., Levchenko, O.V., Fomin, V.V., Ligi, M. Unveiling the contourite depositional system in the Vema Fracture Zone (Central Atlantic). *Scientific Reports*, 13, 13834, 2023.
- 2 Vincent, C., Maia, M., Briais, A., Brunelli, D., **Ligi, M.**, Sichel, S. Evolution of a cold intra-transform ridge segment through oceanic core complex splitting and mantle exhumation, St Paul Transform system, Equatorial Atlantic. *Geochemistry, Geophysics, Geosystems*, 24, e2023GC010870, 2023.
- 3 Frey, D.I., Krechik, V.A., Bashirova, L.D., Ostroumova, S.A., Smirnova, D.A., Kuleshova, L.A., Ponomarenko, E.P., Morozov, E.G., **Ligi, M.**, Dudkov, I.Yu., Sivkov, V.V. Multiple abyssal jets flowing into the Vema Deep, Romanche Fracture Zone. *Journal of Geophysical Research: Oceans*, 128, e2022JC019434, 2023.
- 4 Gasperini, L., **Ligi, M.**, Accettella, D., Bosman, A., Cuffaro, M., Lodolo, E., Martorelli, E., Muccini, F., Palmiotto, C., Polonia, A., Late Miocene to recent tectonic evolution of the Macquarie Triple Junction. *Geology*, 51, 146–150, 2023.
- 5 Skolotnev, S., Sanfilippo, A., Peyve, A., Palmiotto, C., Ivanenko, A., Cuffaro, M., Veklich, I., Muccini, F., Ponomarenko, E., Petracchini, L., Kuleshov, D., Basch, V., Dobrolyubov, V., Ferrando, C., Shkittin, N., Sani, C., Pugacheva, T., Bonatti, E., Dokashenko, S., Nestola, Y., Yakovenko, E., Bickert, M., Gladkich, P. and **Ligi, M.** Crustal accretion along the northern Mid Atlantic Ridge (52°–57°N): Preliminary results from expedition V53 of R/V Akademik Sergey Vavilov. *Ophioliti*, 48(1), 13–30, 2023.
- 6 Ali, M., Decarlis, A., **Ligi, M.**, Ball, P., Bosworth, W., Ceriani, A. The Red Sea rifting in central Egypt: constraints from the offshore Quseir. *Journal of the Geological Society*, 2022, <https://doi.org/10.1144/jgs2022-105>.
- 7 **Ligi, M.**, Cuffaro, M., Muccini, F., Bonatti, E. Generation and Evolution of the Oceanic Lithosphere in the North Atlantic. *La Rivista del Nuovo Cimento*, 45(7), 460–533, 2022.
- 8 Ali, M., **Ligi, M.**, Ceriani, A., Bouchaala, F., Bosworth, W., & Decarlis, A. Geophysical evidence for post-rift magmatism southwest of the Brothers Islands, Northern Red Sea (offshore Quseir, Egypt). *Tectonics*, 41, 1–26, e2022TC007228, 2022.
- 9 Basch, V., Sanfilippo, A., Skolotnev, S.G., Ferrando, C., Muccini, F., Palmiotto, C., Peyve, A.A., Ermolaev, B.V., Okina, O.I., **Ligi, M.** Genesis of oceanic oxide gabbros and gabbronorites during reactive melt migration at transform walls (Doldrums Megatransform System; 7–8°N Mid-Atlantic Ridge), *Journal of Petrology*, 63, 1–23, 2022.
- 10 Gasperini, L., Zaniboni, F., Armigliato, A., Tinti, S., Pagnoni, G., Sinan Özeren, M., **Ligi, M.**, Polonia, A. Tsunami potential source in the eastern Sea of Marmara (NW Turkey) along the North Anatolian Fault system. *Landslides*, 19, 2022.
- 11 Skolotnev, S.G., Peyve, A.A., Ivanenko, A.N., Dobrolyubova, K.O., Sanfilippo, A., **Ligi, M.**, Sokolov, S.Yu., Veklich, I.A., Petracchini, L., Basch, V., Ferrando, C., Sani, C., Bickert, M., Muccini, F., Palmiotto, C., Cuffaro, M., Kuleshov, D.A., Dobrolyubov, V.N., Shkittin, N.A., Dokashenko, S.A., Yakovenko, E.S., New Data on the Geological Structure of the Eastern Flank of the Charlie Gibbs Fracture Zone (North Atlantic). *Dokl. Earth Sc.*, 504, 333–337 (2022).
- 12 Skolotnev, S.G., Peyve, A.A., Sanfilippo, A., Ivanenko, A.N., **Ligi, M.**, Veklich, I.A., Petracchini, L., Ponomarenko, E.P., Basch, V., Kuleshov, D.A., Ferrando, C., Dobrolyubov, V.N., Sani, C., Shkittin, N.A., Bickert, M., Dokashenko, S.A., Muccini, F., Yakovenko, E.S., Palmiotto, C., Pugacheva, T.L., Cuffaro, M. Peculiarities of the Tectonomagmatic Processes in the Interaction Area between the Icelandic Plume and the Bight Transform Fault (North Atlantic). *Dokl. Earth Sc.*, 504, 233–239 (2022).
- 13 Skolotnev, S.G., Peyve, A.A., Sanfilippo, A., Ivanenko, A.N., **Ligi, M.**, Veklich, I.A., Petracchini, L., Basch, V., Kuleshov, D.A., Ferrando, C., Dobrolyubov, V.N., Sani, C., Shkittin, N.A., Bickert, M., Dokashenko, S.A., Muccini, F., Yakovenko, E.S., Palmiotto, C., Cuffaro, M. Geological-

- Geophysical Investigations in the North Atlantic during Cruise 53 of the R/V Akademik Sergey Vavilov. *Oceanology*, **62**(4), 575–577, 2022.
- 14 Mitchell, C. N., Hernandez, K., Preine, J., **Ligi, M.**, Augustin, N., Izzeldin, A., Hübscher, C. Early stage diapirism in the Red Sea deep-water evaporites: Origins and length-scales. *Tectonophysics*, **831**:229331, 2022, <https://doi.org/10.1016/j.tecto.2022.229331>.
 - 15 Skolotnev, S.G., Dobrolybova, K.O., Peyve, A.A., Sokolov, S.Yu., Chamov, N.P., **Ligi, M.**, Structure of Spreading Segments of the Mid-Atlantic Ridge between the Arkhangelsky and Bogdanov Transform Faults, Equatorial Atlantic. *Geotectonics*, **56**(1), 1–20, 2022
 - 16 Sanfilippo, A., Sani, C., Rasul, N.M.A., Stewart, I.C.F., Vigliotti, L., Widinly, N., Osemi, A., **Ligi, M.** Hidden but Ubiquitous: The Pre-Rift Continental Mantle in the Red Sea Region. *Frontiers in Earth Science* 9:699460, 1–22, 2021.
 - 17 Gasperini, L., **Ligi, M.**, Stanghellini, G. Pseudo-3D techniques for analysis and interpretation of high-resolution marine seismic reflection data. *Bulletin of Geophysics and Oceanography*, **62**(4), 599–614, 2021.
 - 18 Skolotnev, S.G., Sanfilippo, A., Peyve, A.A., Nestola, Y., Sokolov, S.Yu., Petracchini, L., Dobrolybova, K.O., Basch, V., Pertsev, A.N., Ferrando, C., Ivanenko, A.N., Sani, C., Razumovskii, A.A., Muccini, F., Bich, A.S., Palmiotto, C., Brusilovsky, Y.V., Bonatti, E., Sholukhov, K.N., Cuffaro, M., Veklich, I.A., **Ligi, M.**, Dobrolybov, V.N. Geological and Geophysical Studies of the Charlie Gibbs Fracture Zone (North Atlantic). *Dokl. Earth Sc.* **497**, 191–194, 2021.
 - 19 Skolotnev, S.G., Sanfilippo, A., Peyve, A.A., Nestola, Y., Sokolov, S.Yu., Petracchini, L., Dobrolybova, K.O., Basch, V., Pertsev, A.N., Ferrando, C., Ivanenko, A.N., Sani, C., Razumovskii, A.A., Muccini, F., Bich, A.S., Palmiotto, C., Brusilovsky, Y.V., Bonatti, E., Sholukhov, K.N., Cuffaro, M., Veklich, I.A., Dobrolybov, V.N., **Ligi, M.** Seafloor Spreading and Tectonics at the Charlie Gibbs Transform System (52–53°N, Mid Atlantic Ridge): Preliminary Results from R/V AN Strakhov Expedition S50. *Ofioliti* **46**, 83–101, 2021.
 - 20 Li P., Q.-K. Xia, L. Dallai, E. Bonatti, D. Brunelli, A. Cipriani, **M. Ligi**. High H₂O Content in Pyroxenes of Residual Mantle Peridotites at a Mid Atlantic Ridge Segment. *Scientific Reports*, **10**: 579, 1–11, 2020.
 - 21 Gallotti, G., S. Passaro, A. Armigliato, F. Zaniboni, G. Pagnoni, L. Wang, M. Sacchi, S. Tinti, **M. Ligi**, G. Ventura. Potential mass movements on the Palinuro volcanic chain (southern Tyrrhenian Sea, Italy) and consequent tsunami generation. *Journal of Volcanology and Geothermal Research*, **404**:107025, 1–13, 2020.
 - 22 Sani, C., A. Sanfilippo, C. Ferrando, A. A. Peyve, S. G. Skolotnev, F. Muccini, A. Zanetti, V. Basch, C. Palmiotto, E. Bonatti, **M. Ligi**. Ultra-depleted melt refertilization of mantle peridotites in a large intra-transform domain (Doldrums Fracture Zone; 7–8°N, Mid Atlantic Ridge). *Lithos*, **374–375**:105698, 1–14, 2020.
 - 23 Brunelli D., A. Sanfilippo, E. Bonatti, S. Skolotnev, J. Escartin, **M. Ligi**, G. Ballabio, A. Cipriani. Origin of oceanic ferrodiorites by injection of nelsonitic melts in gabbros at the Vema Lithospheric Section, Mid Atlantic Ridge. *Lithos*, 368–369, 1–16, 2020.
 - 24 Gasperini L., M. Lazar, A. Mazzini, M. Lupi, A. Haddad, C. Hensen, M. Schmidt, A. Caracusi, **M. Ligi**, A. Polonia. Neotectonics of the Sea of Galilee (northeast Israel): implication for geodynamics and seismicity along the Dead Sea Fault system. *Scientific Reports*, **10**, 1–17, 2020
 - 25 Zitellini N., C.R. Ranero, M.F. Loreto, **M. Ligi**, M. Pastore, F. D’Oriano, V. Sallares, I. Grevemeyer, S. Moeller, M. Prada. Recent inversion of the Tyrrhenian Basin. *Geology*, **48**(2), 123–127, 2020.
 - 26 Skolotnev S.G., A. Sanfilippo, A.A. Peyve, F. Muccini, Yu.S. Sokolov, C. Sani, K.O. Dobroliubova, C. Ferrando, N.P. Chamov, C. Palmiotto, A.N. Pertsev, E. Bonatti, M. Cuffaro, A.C. Gryaznova, , K.N. Sholukhov, A.S. Bich, **M. Ligi**. Large-scale structure of the Doldrums multi-fault transform system (7–8°N Equatorial Atlantic): Results from the 45th Expedition of the R/V A. N. Strakhov. *Ofioliti*, **45**(1), 25–41, 2020.
 - 27 Giglio F., S. Romano, S. Albertazzi, F. Chiarini, M. Ravaioli, **M. Ligi**, L. Capotondi. Sediment dynamics of the Neretva Channel (Croatia Coast) inferred by chemical and physical proxies. *Applied Sciences*, **10**(3):807, 1–18, 2020.

- 28 Billi A., M. Cuffaro, L. Beranzoli, S. Bigi, A. Bosman, C. G. Caruso, A. Conti, A. Corbo, A. Costanza, G. D'Anna, M. De Caro, C. Doglioni, D. Embriaco, G. Fertitta, F. Frugoni, L. Gasperini, F. Italiano, G. Lazzaro, **M. Ligi**, E. Martorelli, S. Monna, C. Montuori, A. Nigrelli, G. Passafiume, L. Petracchini, P. Petricca, A. Polonia, G. Proietti, L. Ruggiero, T. Sgroi, M.C. Tartarello. The SEISMOFAULTS project: First surveys and preliminary results for the Ionian Sea area, southern Italy. *Annals of Geophysics*, **63**, SE326, 1-26, 2020.
- 29 Loreto M.F., D. Düşünür-Doğan, S. Üner, Y. İşcan-Alp, N. Ocakoğlu, L. Cocchi, F. Muccini, P. Giordano, **M. Ligi**. Fault-controlled deep hydrothermal flow in a back-arc tectonic setting, SE Tyrrhenian Sea. *Scientific Reports*, 9:17724, 2019.
- 30 Roveri M., R. Gennari, **M. Ligi**, S. Lugli, V. Manzi, M. Reghizzi. The synthetic seismic expression of the Messinian salinity crisis from onshore records: implications for shallow- to deep-water correlations. *Basin Research*, **31**, <https://doi.org/10.1111/bre.12361>, 2019.
- 31 Cuffaro M., A. Billi, S. Bigi, A. Bosman, C. G. Caruso, A. Conti, A. Corbo, A. Costanza, G. D'Anna, C. Doglioni, P. Esestime, G. Fertitta, L. Gasperini, F. Italiano, G. Lazzaro, **M. Ligi**, M. Longo, E. Martorelli, L. Petracchini, P. Petricca, A. Polonia, and T. Sgroi. The Bortoluzzi Mud Volcano (Ionian Sea, Italy) and its potential for tracking the seismic cycle of active faults. *Solid Earth*, **10**, 741-763, <https://doi.org/10.5194/se-10-741-2019>, 2019.
- 32 **Ligi M.**, G. Bortoluzzi, F. Giglio, F. Del Bianco, V. Ferrante, L. Gasperini, M. Ravaioli. The seafloor geomorphology of Boka Kotorska Bay. *Measurements*, **125**, 2018.
- 33 **Ligi M.**, E. Bonatti, W. Bosworth, Y. Cai, A. Cipriani, C. Palmiotto, S. Ronca and M. Seyler, Birth of an Ocean in the Red Sea: Oceanic-type Basaltic Melt Intrusions Precede Continental Rupture. *Gondwana Research*, **54**, 150-160, <https://doi.org/10.1016/j.gr.2017.11.002>, 2018.
- 34 Savelli C. and **M. Ligi**. An updated reconstruction of basaltic crust emplacement in Tyrrhenian sea, Italy. *Scientific Reports*, **7**: 18024, 2017.
- 35 Mitchell N.C., **Ligi, M.**, Feldens, P. and Hubscher, C. Deformation of a young salt giant: regional topography of the Red Sea Miocene evaporites, *Basin Research* **29**, 352-369, doi: [10.1111/bre.12153](https://doi.org/10.1111/bre.12153), 2017.
- 36 Conti A., Bigi, S., Cuffaro, M., Doglioni, C., Scrocca, D., Muccini, F., Cocchi, L., **Ligi, M.**, Bortoluzzi, G. Transfer zones in an oblique back-arc basin setting: insights from the Latium-Campania segmented margin (Tyrrhenian Sea). *Tectonics* **36**, 78-107, 2017.
- 37 Bortoluzzi G., Polonia, A., Torelli, L., Artoni, A., Carlini, M., Carone, S., Carrara, G., Cuffaro, M., Del Bianco, F., D'Oriano, F., Ferrante, V., Gasperini, L., Ivaldi, R., Laterra, A., **Ligi, M.**, Locritani, M., Muccini, F., Mussoni, P., Priore, F., Riminiucci, F., Romano, S., Stanghellini, G. Styles and rates of deformation in the frontal accretionary wedge of the Calabrian Arc (Ionian Sea): controls exerted by the structure of the lower African plate. *Ital. J. Geosci.* **136**, 1–23 43, 2017.
- 38 Di Bucci D., I. Antoncecchi, F. Ciccone, G. Teofilo, F. Terlizzese, A. Argnani, **M. Ligi**, M. Rovere, R. Basili, M. Coltelli, S. Lorito, B. Borzi, F. Germagnoli, M. Di Ludovico, G.P. Lignola, A. Prota. The SPOT project (potentially triggerable offshore seismicity and tsunamis): a first appraisal of the possible impact of oil and gas platforms on the seismic and tsunami risks along the Italian coasts. *Geingegneria Ambientale e Mineraria*, 54(3), 61-68, 2017.
- 39 Maia M., S. Sichel, A. Briais, D. Brunelli, **M. Ligi**, N. Ferreira, T. Campos, B. Mougel, I. Brehme, C. Hémond, A. Motoki, D. Moura, C. Scalabrin, I. Pessanha, E. Alves, A. Ayres and P. Oliveira, Extreme mantle uplift and exhumation along a transpressive transform fault. *Nature Geoscience* **9**, 619-624, 2016.
- 40 Augustin N., van der Zwan, F.M., Devey, C.W., **Ligi, M.**, Kwasnitschka, T., Feldens, P., Bantan, R.A., Basaham, A.S., Geomorphology of the Central Red Sea Rift: Determining Spreading Processes. *Geomorphology* **274**, 162-179, 2016.
- 41 Cuffaro M., E. Martorelli, A. Bosman, A. Conti, S. Bigi, F. Muccini, L. Cocchi, **M. Ligi**, G. Bortoluzzi, D. Scrocca, S. Canese, F. L. Chiocci, A. M. Conte, C. Doglioni and C. Perinelli, The Ventotene Volcanic Ridge: a newly explored complex in the central Tyrrhenian Sea (Italy). *Bull. Volcanol.* **78**(86), 1-19, doi [10.1007/s00445-016-1081-9](https://doi.org/10.1007/s00445-016-1081-9), 2016.

- 42 Mitchell N.C., **M. Ligi**, E.J. Rohling, Red Sea isolation history by Plio-Pleistocene seismic reflection sequences, *Earth and Planetary Science Letters* **430**, 387-397, 2015.
- 43 **Ligi M.**, L. Cocchi, G. Bortoluzzi, F. D'Oriano, F. Muccini, F. Caratori Tontini, C. E. J. de Ronde, C. Carmisciano, Mapping of seafloor hydrothermally altered rocks using geophysical methods: Marsili and Palinuro seamounts, southern Tyrrhenian Sea, *Economic Geology* **109**(4), 2014.
- 44 Caratori Tontini, F., G. Bortoluzzi, C. Carmisciano, L. Cocchi, C. E. J. de Ronde, **M. Ligi**, F. Muccini, Near-bottom magnetic signatures of submarine hydrothermal systems at Marsili and Palinuro volcanoes, southern Tyrrhenian Sea, Italy. *Economic Geology* **109**(4), 2014.
- 45 **Ligi M.**, E. Bonatti, M. Cuffaro and D. Brunelli, Post-Mesozoic rapid increase of seawater Mg/Ca due to enhanced mantle-seawater interaction. *Scientific Reports* **3**, doi:10.1038/srep02752, 2013.
- 46 Palmiotto C., L. Corda, **Ligi M.**, A. Cipriani, H. J. B. Dick, E. Douville, L. Gasperini, P. Montagna, F. Thil, A. M. Borsetti, B. Balestra and E. Bonatti, Non-volcanic tectonic islands in ancient and modern oceans. *Geochem. Geophys. Geosyst.* **14**, Q09009, doi:10.1029/2013GC004893, 2013.
- 47 Boschi, C., Bonatti, E., **Ligi, M.**, Brunelli, D., Cipriani, A., Dallai, L., D'Orazio, M., Früh-Green, G.L., Tonarini, S., Barnes, J.D., Bedini, R.M., Serpentization of Mantle Peridotites along an Uplifted Lithospheric Section, Mid Atlantic Ridge at 11° N. *Lithos* **178**, 3-23, doi: <http://dx.doi.org/10.1016/j.lithos.2013.06.003>, 2013.
- 48 **Ligi, M.**, Bonatti, E., Bortoluzzi, G., Cipriani, A., Cocchi, L., Caratori Tontini, F., Carminati, E., Ottolini, L., Schettino, A. Birth of an ocean in the Red Sea: Initial pangs, *Geochem. Geophys. Geosyst.* **13**, Q08009, doi:10.1029/2012GC004155, 2012.
- 49 Doglioni, C., **Ligi, M.**, Scrocca, D., Bigi, S., Bortoluzzi, G., Carminati, E., Cuffaro, M., D'Oriano, F., Forleo, V., Muccini, F., Riguzzi, F. The tectonic puzzle of the Messina area (Southern Italy): Insights from new seismic reflection data. *Scientific Reports* **2**, doi:10.1038/srep00970, 2012.
- 50 **Ligi, M.**, Bonatti, E., Caratori Tontini, F., Cipriani, A., Cocchi, L., Schettino, A., Bortoluzzi, G., Ferrante, V., Khalil, S., Mitchell, N.C., Rasul, N. Initial burst of oceanic crust accretion in the Red Sea due to edge-driven mantle convection. *Geology* **39**, 1019-1022, doi: 10.1130/G32243.1, 2011.
- 51 Mitchell, N.C., Schmidt, M., **Ligi, M.** Comment on "Formation of Thetis Deep metal-rich sediments in the absence of brines, Red Sea" by Pierret et al. (2010). *Journal of Geochemical Exploration* **108**, 112-113, doi: 10.1016/j.gexplo.2010.09.014, 2011.
- 52 Bortoluzzi G., **M. Ligi**, C. Romagnoli, L. Cocchi, D. Casalbore, T. Sgroi, M. Cuffaro, F. Caratori Tontini, F. D'Oriano, V. Ferrante, A. Remia, F. Riminuci, Interactions between Volcanism and Tectonics in the Western Aeolian Sector, Southern Tyrrhenian Sea. *Geophys. J. Int.* **183**, 64–78, 2010.
- 53 Gasperini L., M.R. Barchi, L.G. Bellucci, G. Bortoluzzi, **M. Ligi** & C. Pauselli, Tectonostratigraphy of Lake Trasimeno (Italy) and the Geological evolution of the Northern Apennines. *Tectonophysics* **492**, 164–174, 2010.
- 54 Mitchell N.C., **M. Ligi**, V. Ferrante, E. Bonatti & E. Rutter, Submarine salt glaciers in the central Red Sea. *Geol. Soc. Am. Bull.*, 122 (5/6), 701-713, 2010.
- 55 Caratori Tontini F., L. Cocchi, F. Muccini, C. Carmisciano, M. Marani, E. Bonatti, **M. Ligi**, E. Boschi, Potential-field modeling of collapse-prone submarine volcanoes in the southern Tyrrhenian Sea (Italy), *Geophys. Res. Lett.*, 37 (3), L03305, doi:10.1029/2009GL041757, 2010.
- 56 Cipriani A., E. Bonatti, M. Seyler, H.K. Brueckner, D. Brunelli, L. Dallai, S.R. Hemming, **M. Ligi**, L. Ottolini, B.D. Turrin, “A 19 to 17 Ma amagmatic extension event at the Mid-Atlantic Ridge: ultramafic mylonites from the Vema Lithospheric Section”, *Geochemistry, Geophysics, Geosystems*, doi: 10.1029/2009GC002570, 2009.
- 57 Cipriani A., E. Bonatti, D. Brunelli, **M. Ligi**, - “26 million years of mantle upwelling below a segment of the Mid Atlantic Ridge: The Vema Lithospheric Section revisited”, *Earth and Planetary Science letters*, 285, 87–95, doi:10.1016/j.epsl.2009.05.046, 2009.

- 58 **Ligi M.**, M. Cuffaro, F. Chierici and A. Calafato, Three-dimensional passive mantle flow beneath mid-ocean ridges: an analytical approach. *Geophys. J. Inter.*, 175(2), 783-805, DOI: 10.1111/j.1365-246X.2008.03931.x, 2008.
- 59 Taviani M., M.L. Correa, H. Zibrowius, P. Montagna, M. McCulloch and **M. Ligi**, Last glacial deep-water corals from the Red Sea. *Bull. Mar. Sci.*, 81(3), 2007.
- 60 Peyve A.A., S.G. Skolotnev, **M. Ligi**, N.N. Turko, E. Bonatti, S. Yu. Kolodyazhnyi, N.P. Chamov, N.V. Tsukanov, Yu. E. Baramykov, A.E. Eskin, N. Grindlay, J.G. Sclater, D. Brunelli, A.N. Pertsev, A. Cipriani, G. Bortoluzzi, R. Mercuri, E. Paganelli, F. Muccini, C. Takeuki, F. Zaffagnini, and K.O. Dobrolubova, Investigation of the Andrew Bain Transform Fault Zone (African–Antarctic Region), *Doklady Akademii Nauk /Earth Sciences Section*, 416, 991-994, 2007.
- 61 Bonatti E., D. Brunelli, W.R. Buck, A. Cipriani, P. Fabretti, V. Ferrante, L. Gasperini and **M. Ligi**, Flexural uplift of a lithospheric slab near the Vema transform (Central Atlantic): timing and mechanisms, *Earth Planet. Sci. Lett.*, 240, 642-655, 2005.
- 62 **Ligi M.**, E. Bonatti, A. Cipriani and L. Ottolini, Water-rich basalts at mid-ocean-ridge cold spots *Nature*, 434, 66-69, 2005.
- 63 Seeber, L., Emre, O., Cormier, M.-H., Sorlien, C.C., McHugh, C.M.G., Polonia, A., Ozer, N., Cagatay, N. and The team of the 2000 R/V Urania Cruise in the Marmara Sea (Gasperini, L., Capotondi, L., Amorosi, A., Ryan, W.B., Okay, N., İmren, C., Sarıkavak, K., **Ligi, M.**, Bonatti, E., Bortoluzzi, G., Blasi, A., Fabretti, P., Marozzi, G., Magagnoli, A., Penitenti, D., Busetti, M. and Eriş, K.), Uplift and subsidence from oblique slip: the Ganos–Marmara bend of the North Anatolian Transform, western Turkey, *Tectonophysics*, 391, 1-4, 239-258, 2004.
- 64 Bonatti E., **M. Ligi**, D. Brunelli, A. Cipriani, P. Fabretti, L. Gasperini and L. Ottolini, Mantle thermal pulses below the Mid-Atlantic Ridge and temporal variations in the formation of oceanic lithosphere, *Nature*, 423, 499-505, 2003.
- 65 **Ligi M.**, E. Bonatti, L. Gasperini, and A.N.B. Poliakov, Oceanic broad multifault transform plate boundaries, *Geology*, 30, 11-14, 2002.
- 66 Bonatti E., D. Brunelli, P. Fabretti, **M. Ligi**, R.A. Portaro and M. Seyler, Steady-state creation of crust-free lithosphere at cold spots in mid-ocean ridges, *Geology*, 979-982, 2001.
- 67 Gasperini L., D. Bernoulli, E. Bonatti, A.M. Borsetti, **M. Ligi**, A. Negri, R. Sartori and K. von Salis, Lower Cretaceous to Eocene sedimentary transverse ridge at the Romanche fracture zone and the opening of the Equatorial Atlantic, *Marine Geology*, 176, 101-119, 2001.
- 68 Argnani, A., F. Frugoni, R. Cosi, **M. Ligi** and P. Favali, *Tectonics and seismicity of the Apulian Ridge south of Salento peninsula (Southern Italy)*, Annali di Geofisica, **44** (3), 527-540, 2001.
- 69 Peyve A., K. Dobrolubova, V. Efimov, S. Erofeev, A. Cipriani, **M. Ligi**, A. Mazarovich, A. Perfiliev, Y., Raznitsin, G. Savelieva, V. Simonov, S. Skolotnev, S. Sokolov and N. Turko, Geological features of the Sierra Leone Fracture Zone Region, Central Atlantic Ocean, *Doklady Akademii Nauk /Earth Sciences Section*, 377A, 310-315, 2001.
- 70 Hekinian R., T. Juteau, E. Gracia, B. Sichler, S. Sichel, G. U dintsev, R. Apprioual and **M. Ligi**, Submersible observations of Equatorial Atlantic Mantle: The St. Paul Fracture Zone region, *Marine Geophysical Researches*, 21, 529-560, 2000.
- 71 **Ligi M.**, E. Bonatti, G. Bortoluzzi, G. Carrara, P. Fabretti, D. Gilod, A.A. Peyve, S. Skolotnev and N. Turko, Bouvet Triple Junction in the South Atlantic: Geology and evolution, *Journal of Geophysical Research*, 104, 29365-29385, 1999.
- 72 Sokolov S.Y., V.N. Efimov, A.O. Mazarovich, S.B. Aver'yanov, S.A. Erofeev, L.M. Evgrafov, G. Bortoluzzi, L. Gasperini and **M. Ligi**, Structure of the Sedimentary Cover in the Western African-Antarctic Ridge, Southern Atlantic, *Doklady Akademii Nauk /Earth Sciences Section*, 366, 464-468, 1999.

- 73 Trukhin V.I., V.I. Bagin, O.L. Bagina, V.A. Zhilyaeva, A.A. Bulychev, L.A. Gilod, **M. Ligi**, E. Lodolo, F. Sciuto, E.F. Tomilin and A.A. Shreider, Magnetism of the Bouvet Mid-Ocean Ridge, South Atlantic, *Izvestiya Akademii Nauk Seriya Fizicheskaya / Physics of the Solid Earth*, 35, 1-15, 1999.
- 74 Kastens K., E. Bonatti, D. Caress, G. Carrara, O. Dauteuil, G. Frueh-Green, **M. Ligi**, P. Tartarotti, The Vema Transverse Ridge (Central Atlantic), *Marine Geophysical Researches*, 20, 533-556, 1998.
- 75 Trukhin V.I., V.I. Bagin, O.L. Bagina, V.A. Zhilyaeva, A.A. Bulychev, D.A. Gilod, **M. Ligi**, E. Lodolo, F. Sciuto and A.A. Shreider, Ocean Bottom Magnetism of the Southern Mid-Atlantic Ridge, *Izvestiya Akademii Nauk Seriya Fizicheskaya / Physics of the Solid Earth*, 34, 295-306, 1998.
- 76 Bulychev A.A., L. Gasperini, D. A. Gilod, N. Zitellini, E.Y. Kulikov, E. Lodolo, **M. Ligi**, A.O. Mazarovich, S. Y. Sokolov and A.A. Shreider, Spreading in the eastern part of the Southwest Indian Ridge from the data of detailed geomagnetic studies in the region of Bouvet Island, *Okeanologiya (Oceanology)*, 38, 404-410, 1998.
- 77 Gamberi F., C. Savelli, M. Marani, **M. Ligi**, G. Bortoluzzi and V. Landuzzi, Contesto morfo-tettonico e depositi idrotermali di solfuri ed ossidi di ferro in una porzione sommersa dell'arco eoliano (in base ad indagini ad alta definizione), *Bollettino della Societa' Geologica Italiana*, 117, 55-71, 1998.
- 78 **Ligi M.**, E. Bonatti, G. Bortoluzzi, G. Carrara, P. Fabretti, D. Penitenti, D. Gilod, A.A. Peyve, S. Skolotnev and N. Turko, Death and transfiguration of a triple junction in the South Atlantic, *Science*, 276, 243-245, 1997.
- 79 Gasperini L., E. Bonatti, **M. Ligi**, R. Sartori, A.M. Borsetti, A. Negri, A. Ferrari, S. Sokolov, Stratigraphic numerical modelling of a carbonate platform on the Romanche transverse ridge, Equatorial Atlantic, *Marine Geology*, 136, 245-257, 1997.
- 80 Bonatti E., A.A. Bulychev, D.A. Gilod, N. Zitellini, E.Y. Kulikov, **M. Ligi**, E. Lodolo and A.A. Shreider, Comprehensive geomagnetic research on the triple junction near Bouvet Island, *Okeanologiya (Oceanology)*, 37, 809-820, 1997.
- 81 Mazarovich A.O., G.V. Agapova, V.N. Efimov, **M. Ligi**, S.Yu. Sokolov, N.N. Turko and A.A. Rikhter, Passive parts of Fracture Zones in the Atlantic Ocean between 16°N and the Equator, *Geotectonics*, 31, 420-429, 1997.
- 82 Bonatti E., **M. Ligi**, A.M. Borsetti, L. Gasperini, A. Negri and R. Sartori, Lower Cretaceous deposits trapped near the Mid-Atlantic Ridge, *Nature*, 380, 518-520, 1996.
- 83 Bonatti E., **M. Ligi**, G. Carrara, L. Gasperini, N. Turko, A. Perfiliev, A. Peyve and P.F. Sciuto, Diffuse impact of the Mid Atlantic Ridge with the Romanche transform: An Ultracold Ridge/Transform Intersection, *Journal of Geophysical Research*, 101, 8043-8054, 1996.
- 84 Efimov V.N., S. Yu Sokolov, P.N. Efimov, L. Gasperini and **M. Ligi**, The Structure of the Transverse Rise at the Passive Segment of the Romanche Fracture Zone, *Doklady Akademii Nauk / Earth Sciences Section*, 349, 733-736, 1996.
- 85 Mazarovich A.O., A.A. Peyve, N. Zitellini, A.S. Perfiliev, Yu.N. Raznitsin, N.N. Turko, V.A. Simonov, S.B. Averianov, G. Bortoluzzi, A. Bulychev, L. Gasperini, D.A. Gilod, V.A. Gladun, L.M. Evgrafov, V.N. Efimov, V.Yu. Kolobov, **M. Ligi**, E. Lodolo, A.N. Pertsev, S.Yu. Sokolov and P.F. Sciuto, Morphostructure of the Bouvet island area, *Doklady Akademii Nauk / Earth Sciences Section*, 342, 354-357, 1995.
- 86 Bonatti E., **M. Ligi**, L. Gasperini, A. Mazarovich, Y. Raznitsin and Y.J. Chen - Transform migration and vertical tectonics at the Romanche fracture zone, equatorial Atlantic, *Journal of Geophysical Research*, 99, 21779-21802, 1994.
- 87 Peyve A.A., N. Zitellini, A.S. Perfiliev, A.O. Mazarovich, Yu.N. Raznitsin, N.N. Turko, V.A. Simonov, S.B. Averianov, G. Bortoluzzi, A. Bulychev, L. Gasperini, D.A. Gilod, V.A. Gladun, L.M. Evgrafov, V.N. Efimov, V.Yu. Kolobov, **M. Ligi**, E. Lodolo, A.N. Pertsev, S.Yu. Sokolov and P.F. Sciuto, Structure of the Mid-Atlantic Ridge in the area of the Bouvet Triple Junction, *Doklady Akademii Nauk / Earth Science Section*, 341A, 132-136. 1994.

- 88 Argnani A., P. Favali, F. Frugoni, M. Gasperini, **M. Ligi**, M. Marani, G. Mattietti and G. Mele, Foreland deformational pattern in the Southern Adriatic Sea, *Annali di Geofisica*, 36,229-247, 1993.
- 89 Gasperini M., P. Ferretti, **M. Ligi** and P. Zucchini, A paraboloidal sparker seismic source. *Bollettino di Geofisica Teorica ed Applicata*, 35, 139, 327-337, 1993.
- 90 **Ligi M.** and G. Bortoluzzi, Datum: a FORTRAN 77 Computer Program for datum shift and conversion of geographical coordinates between different cartographic systems. *Computers & Geosciences*, 15, 449-518, 1989.
- 91 **Ligi M.** and G. Bortoluzzi, PLOTMAP: Geophysical and Geological Applications of good standard quality cartographic software. *Computers & Geosciences*, 15, 519-585, 1989.
- 92 Bortoluzzi G. and **M. Ligi**, DIGMAP: a computer program for accurate acquisition by digitizer of geographical coordinates from conformal projections. *Computers & Geosciences*, 12, 175-197, 1986.

2. Book Chapters

- 93 Bosworth, W., S.M. Khalil, **M. Ligi**, D.F. Stockli, K.R. McClay. Geology of Egypt: The Northern Red Sea. In “*The Geology of Egypt*”, Eds. Z. Hamimi, A. El-Barkooky, J. Martínez Frías, H. Fritz, Y. Abd El-Rahman, Regional Geology Reviews Series, Springer-Verlag Berlin, 343-374, 2020.
- 94 **Ligi, M.**, E. Bonatti, W. Bosworth and S. Ronca. Oceanization starts at depth during continental rupturing in the northern Red Sea. In “*Geological setting, Palaeoenvironment and Archaeology of the Red Sea*”, Eds. N.M.A. Rasul and I.C.F. Stewart. Springer Earth Sciences Series, Springer-Verlag Berlin, 131-157, 2019.
- 95 Sanfilippo, A., Y. Cai., A.P. Gouveia Jácome and **M. Ligi**. Geochemistry and Sr-Nd-Pb isotopic composition of the Lunayyir and Khaybar volcanic fields, Saudi Arabia. In “*Geological setting, Palaeoenvironment and Archaeology of the Red Sea*”, Eds. N.M.A. Rasul and I.C.F. Stewart. Springer Earth Sciences Series, Springer-Verlag Berlin, 389-415, 2019.
- 96 Mitchell, N. C., **M. Ligi** and N. M. A. Rasul. Variations in Plio-Pleistocene deposition in the Red Sea. In “*Geological setting, Palaeoenvironment and Archaeology of the Red Sea*”, Eds. N.M.A. Rasul and I.C.F. Stewart. Springer Earth Sciences Series, Springer-Verlag Berlin, 323-339, 2019.
- 97 Mitchell, N.C., R. Stretch, F. Tempera, **M. Ligi**. Volcanism in the Azores: a marine geophysical perspective. In “*Volcanoes of the Azores*”, Eds. Kueppers U., C. Beier. Active Volcanoes of the World, Springer, ISBN 978-3-642-32225-9, 2018.
- 98 Mitchell, N. C., **M. Ligi**, Growth structures and unconformities in the upper evaporites, Red Sea. In “*Atlas of Structural Geological Interpretation on Seismic Images*”, Eds. A. A. Misra and S. Mukherjee, ISBN: 978-1-119-15832-5, Wiley-Blackwell New York, Chapter 38, 191-193, 2018.
- 99 Mitchell, N. C., **M. Ligi**, Compression folds and a strike-slip fault in flowing evaporites, Red Sea. In “*Atlas of Structural Geological Interpretation on Seismic Images*”, Eds. A. A. Misra and S. Mukherjee, ISBN: 978-1-119-15832-5, Wiley-Blackwell New York, Chapter 25, 137-139, 2018.
- 100 Bortoluzzi G., F. Giglio, **M. Ligi**, F. Del Bianco, V. Ferrante, L. Gasperini and M. Ravaioli, Morphobathymetry of Boka Kotorska Bay. In “*The Boka Kotorska Bay Environment*”, Eds. A. Joksimović, M. Djurović, A.V. Semenov, I.S. Zonn, A.G. Kostianoy, Hdb Env Chem, Doi: 10.1007/698_2016_29, Springer International Publishing Switzerland, 54, 69-88, 2017.
- 101 **Ligi M.**, Bonatti E., Rasul N.M.A – Seafloor Spreading Initiation: Geophysical and Geochemical Constraints from the Thetis and Nereus Deeps, Central Red Sea. In “*The Red Sea- The Formation, Morphology, Oceanography and Environment of a Young Ocean Basin*” Eds. N.M.A. Rasul and I.C.F. Stewart. Springer Earth Sciences Series, 79-98, Springer-Verlag Berlin, 2015.
- 102 Romagnoli C., D. Casalbore, G. Bortoluzzi, F.L. Chiocci, F. D’Oriano, F. Gamberi, **M. Ligi** & M. Marani. Bathy-morphological setting of the Aeolian Islands. In *Geology of the Aeolian Islands* (Eds. Lucchi F., A. Peccerillo, J. Keller, C.A. Tranne & P.L. Rossi). *Memoir of Geological Society of London* 37, 27–36, doi: <http://dx.doi.org/10.1144/M37.4>, 2013.
- 103 Bortoluzzi G., D. Casalbore, F. D’Oriano, F. Gamberi, **M. Ligi**, M. Marani & C. Romagnoli. Bathy-morphological map. Western Aeolian sector. In *Geology of the Aeolian Islands* (Eds. Lucchi F., A. Peccerillo, J. Keller, C.A. Tranne & P.L. Rossi). *Memoir of Geological Society of London* 37, 2013.

- 104 Chiocci F. L., A. Bosman, D. Casalbore, C. Romagnoli, G. Bortoluzzi, F.L., F. D'Oriano, F. Gamberi, **M. Ligi**, M. Marani. Bathymorphological map. Eastern Aeolian sector. In *Geology of the Aeolian Islands* (Eds. Lucchi F., A. Peccerillo, J. Keller, C.A. Tranne & P.L. Rossi). *Memoir of Geological Society of London* **37**, 2013.
- 105 **Ligi, M.**, Bonatti, E., Brunelli, D., Cipriani, A., Ottolini, L. Water in Mid Ocean Ridge Basalts: Some Like it Hot, Some Like it Cold. In: Marine Research at CNR, DTA, vol. DTA/06-2011, 671-690, Roma: Consiglio Nazionale delle Ricerche, ISSN: 2239-5172, 2011.
- 106 Bortoluzzi, G., Aliani, S., **Ligi, M.**, D'Oriano, F., Ferrante, V., Riminucci, F., Carmisciano, C., Cocchi, L., Muccini, F. Multidisciplinary Investigations at Panarea (Aeolian Islands) after the Exhalative Crisis of 2002. In: Marine Research at CNR. DTA, vol. DTA/06-2011, 1468-1486, Roma:Consiglio Nazionale delle Ricerche, ISSN: 2239-5172, 2011.
- 107 Marani M., F. Gamberi, G. Bortoluzzi, G. Carrara, **M. Ligi** and D. Penintenti, Seafloor morphology of the Tyrrhenian Sea, in From seafloor to deep mantle: architecture of the Tyrrhenian backarc basin, Eds. M. Marani, F. Gamberi and E. Bonatti, *Memorie descrittive della Carta Geologica d' Italia*, Vol. LXIV, Plate 1, 2004.
- 108 Marani M., F. Gamberi, G. Bortoluzzi, G. Carrara, **M. Ligi** and D. Penintenti, Tyrrhenian Sea bathymetry, in From seafloor to deep mantle: architecture of the Tyrrhenian backarc basin, Eds. M. Marani, F. Gamberi and E. Bonatti, *Memorie descrittive della Carta Geologica d' Italia*, Vol. LXIV, Plate 2, 2004.
- 109 Marani M., F. Gamberi, G. Bortoluzzi, G. Carrara, **M. Ligi** and D. Penintenti, Seafloor bathymetry of the Ionian Sea, in From seafloor to deep mantle: architecture of the Tyrrhenian backarc basin, Eds. M. Marani, F. Gamberi and E. Bonatti, *Memorie descrittive della Carta Geologica d' Italia*, Vol. LXIV, Plate 3, 2004.
- 110 Marani M., F. Gamberi, G. Bortoluzzi, G. Carrara, **M. Ligi** and D. Penintenti, Free air anomaly of the northern Tyrrhenian Sea, in From seafloor to deep mantle: architecture of the Tyrrhenian backarc basin, Eds. M. Marani, F. Gamberi and E. Bonatti, *Memorie descrittive della Carta Geologica d' Italia*, Vol. LXIV, Plate 4, 2004.
- 111 Bortoluzzi G. and **M. Ligi**, Examples of spatial analysis management in the geographical and conformal domains. In: Quantitative Analysis of Mineral and Energy Resources, Ed. C.F. Chung, A.G. Fabbri and R. Sinding-Larsen, *NATO ASI Series C*, 223, 553-564, Reidel Publishing Company, Dordrecht, Holland, 1988.

3. Other Publications

- 112 Bortoluzzi G., F. Giglio, **M. Ligi**, F. Del Bianco, V. Ferrante, L. Gasperini and M. Ravaioli, The seafloor geomorphology of Boka Kotorska Bay. In "Proceeding of IMEKO TC19 Workshop on Metrology for the Sea (MetroSea 2017) – Naples, Italy 11-13 October 2017". Curran Associates Inc., ISBN: 978-1-5108-5211-2, pp. 246-251, 2017.
- 113 **Ligi, M.** Una luce sulle profondità del mantello terrestre, *Il Sussidiario*, 2014.
- 114 Doglioni, C., **Ligi, M.**, Scrocca, D., Bigi, S., Bortoluzzi, G., Carminati, E., Cuffaro, M., D'oriano, F., Forleo, V., Muccini, F., Riguzzi, F. On the active tectonics along the Messina Strait. *Rendiconti Online Società Geologica Italiana* **21**, 221-222, 2012.
- 115 **Ligi, M.**, Bonatti, E., Taviani, M. L'Oceano del Faraone. *Darwin* **45**, 90-95, 2011.
- 116 Castellano M., V. Augusti, W. De Cesare, P. Favali, F. Frugoni, C. Montuori, T. Sgroi, P. De Gori, A. Govoni, M. Moretti, D. Patanè, O. Cocina, L. Zuccarello, E. Marsella, G. Aiello, V. Di Fiore, **M. Ligi**, G. Bortoluzzi, V. Ferrante, E. Marchetti, G. Lacanna and G. Ulivieri, Seismic tomography experiment at Italy's Stromboli volcano, *EOS Transaction of AGU*, 89, 269-270, 2008.
- 117 Styles P., A. Bjorlykke, J. de Leeuw, **M. Ligi**, J.P. Montagner, P. Shannon, ECORD Mid-Term Review, a review of the Science, Management and value for money of the European Consortium for Ocean Research Drilling, pp 40, 2007.
- 118 Barchi, M.R., G. Bortoluzzi, L. Gasperini, **M. Ligi** and C. Pauselli, Tectono-sedimentary evolution of the Lake Trasimeno; a seismic reflection study, *Rendiconti della Società Geologica Italiana*, 5 (2), 54-56, 2007.

- 119 **Ligi, M.**, Una nuova classe di trasformi oceaniche, *ScienzaOnLine*, 3, 30, 2006.
- 120 Polonia A., M.H. Cormier, N. Cagatay, G. Bortoluzzi, E. Bonatti, L. Gasperini, L. Seeber, N. Gorur, L. Capotondi, C. McHugh, W.B. Ryan, O. Emre, N. Okay, **M. Ligi** et al., Exploring submarine earthquake geology in the Marmara Sea, *Vestnik Moskovshovo Universiteta Seriya 3 Fizika Astronomiya*, 83, 229-236, 2003.
- 121 Trincardi F., A. Argnani, A. Asioli, G. Bortoluzzi, A. Cattaneo, A. Correggiari, A. Fabbri, F. Gamberi, **M. Ligi**, D. Penitenti, M. Roveri and M. Taviani, Note illustrative della Carta Geologica dei Mari Italiani foglio JOG NL33-10 Ravenna alla scala 1:250000. S.EL.CA. Firenze, pp. 108, 2003.
- 122 Polonia A., M.H. Cormier, N. Cagatay, G. Bortoluzzi, E. Bonatti, L. Gasperini, L. Seeber, N. Gorur, L. Capotondi, C. McHugh, W.B. Ryan, O. Emre, N. Okay, **M. Ligi** et al., Exploring submarine earthquake geology in the Marmara Sea, *EOS Transaction of AGU*, 83, 229-236, 2002.
- 123 Fabbri A., A. Argnani, G. Bortoluzzi, A. Correggiari, F. Gamberi, **M. Ligi**, M. Marani, D. Penitenti, M. Roveri, F. Trincardi, Carta Geologica dei Mari Italiani alla Scala 1:250000: Guida al Rilevamento. *Servizio Geologico, Quaderni serie III*, 8, pp. 102, 2002.
- 124 Zitellini N., L.A. Mendes, D. Cordoba, J. Danobetia, R. Nicolich, G. Pellis, A. Ribeiro, R. Sartori, L. Torelli, R. Bartolome, G. Bortoluzzi, A. Calafato, F. Carrilho, B. Della Vedova, E. Gracia, P. Jornet, M. Landuzzi, **M. Ligi** et al., Source of 1755 Lisbon earthquake and tsunami investigated, *EOS Transaction of AGU*, 82, 285-291, 2001.
- 125 Peyve A., E. Bonatti, D. Brunelli, A. Chilikov, A. Cipriani, K. Dobrolubova, V. Efimov, S. Erofeev, V. Ferrante, L. Gasperini, R. Hekinian, **M. Ligi**, M. Guerra, A. Mazarovich, A. Perfiliev, Y. Raznitsin, G. Savelieva, B. Sichler, V. Simonov, S. Skolotnev, S. Sokolov and N. Turko, New data on some major MAR structures: preliminary results of R/V Akademik Nikolaj Strakhov 22 cruise, *InterRidge News*, 9, No. 2, 28, 2000.
- 126 **Ligi M.**, E. Bonatti and P. Fabretti, Dove si incontrano Africa, Sud America ed Antartide: storia geologica di una convivenza, *Ricerca & Futuro*, 14, 69-70, 2000.
- 127 Bonatti E., L. Gasperini, **M. Ligi** and M. Ravaiali, I due terzi oscuri del nostro Pianeta: la geologia della Terra sommersa, *Ricerca & Futuro*, 14, 66-87, 2000.
- 128 Zitellini N., F. Chierici, A. Correggiari, **M. Ligi**, R. Sartori, L. Torelli, L. Vigliotti, and Bigsets Team, Detailed studies of a tsunamigenic strture offshore SW Iberia: the chance offered by the tectonic source of the 1755 Lisbon Earthquake, a preliminary ODP proposal, *Workshop on Mediterranean Scientific Drilling Prospectives*, Granada 10-12 June, 65-71, 1999.
- 129 Peyve A.A., Turko N.N., Skoltnev S.G., Sushchevskaya N.M., **Ligi M.**, Fabretti P., Mazarovich A.O., Sokolov S. Yu., and Gilod D.A., Bouvet Triple Junction: Its evolutionary and structural peculiarities, *Tr. Geol. Inst. Russ. Akad. Nauk*, 511, in *Issues of Geodynamics of Lithosphere*, 91-109, Nauka, Moscow, 1999.
- 130 Fabretti P., E. Bonatti, A. Peyve, D. Brunelli, A Cipriani, X. Dobrolubova, V. Efimov, S. Erofeev, L. Gasperini, J.A. Hanley, **M. Ligi**, A. Perfiliev, V. Rastorguyev, Y. Raznitzin, G. Savelieva, V. Semjenov, S. Sokolov, S. Skolotnev, S. Susini and I. Vikentyev, First Results of Cruise S19 (PRIMAR Project): petrological and structural investigations of the Vema transverse Ridge, *Giornale di Geologia*, 60, 3-15, 1998.
- 131 Bortoluzzi G., F. Frascari, F. Gamberi, **M. Ligi**, D. Penitenti, M. Roveri, A. Cassis, R. Fantoni, F. Piccoli, R. Servodio, L. Trovarelli, G. Di Dio, R. Pignone, R. Di Florio, S. Melandri, S. Mongardi, F. Zucchini, A. Monfardini, R. Rossini and O. De Curtis, Acquisizione di dati, sperimentazione di metodologie geofisiche e vallutazione del loro impatto ambientale sul Fiume Po, *Giornale di Geologia*, 60, 267-270, 1998.
- 132 Gasperini L., E. Bonatti, D. Brunelli, G. Carrara, A.Cipriani, P.Fabretti, D.Gilod, **M.Ligi**, A.Peyve, S.Skolotnev, S.Susini, P.Tartarotti and N.Turko, New data on the geology of the Romanche F.Z., equatorial Atlantic: PRIMAR-96 cruise report, *Giornale di Geologia*, 59, 3-18, 1997.
- 133 Poluzzi A., **M. Ligi** and M. Badalini, Bryozoan transport and high-energy environments (Strai of Messina, Sicily), *Giornale di Geologia*, 59, 55-79, 1997.
- 134 Carrara G., G. Bortoluzzi, N. Zitellini, E. Bonatti, D. Brunelli, A. Cipriani, P. Fabretti, L. Gasperini, **M. Ligi**, D. Penitenti; P.F. Sciuto, A. Mazarovich, A. Peyve, N. Turko, S. Skolotnev and D. Gilod,

- The Bouvet Triple Junction Region (South Atlantic); a report on two geological expeditions, *Giornale di Geologia*, 59, 19-33, 1997.
- 135 **Ligi M.**, M. Ravaioli, A. Argnani and F. Trincardi, Comunicazione dell'Istituto per la Geologia Marina Consiglio Nazionale delle Ricerche – Bologna, *Atti del 9° Congresso Nazionale dei Geologi*, Roma 17-20 April, 96-109, 1997.
- 136 Bonatti E., A. Bulychev, D. Gilod, N. Zitellini, **M. Ligi**, E. Lodolo and A. Schreider, Detailed geomagnetic study of the Bouvet triple junction point, In: Linked mass and energy fluxes at ridge crests (SCOR Working Group 99) and BRIDGE research results, Ed.: M. Lindsay-Parson and M. Sinha, *Southampton Oceanography Centre Report*, 3,10, 1997.
- 137 Argnani A., C. Bonazzi, D. Evangelisti, P. Favali, F. Frugoni, M. Gasperini, **M. Ligi**, M. Marani, and G. Mele, Tettonica dell'Adriatico Meridionale, *Memorie della Societa' Geologica Italiana*, 51, Fasc.I, 227-237, 1996.
- 138 Mitchell N.C., R.A. Livermore, R. Larter, M. Ligi, F. Martinez, A. Nankivell and Y. Nogi, Sonar Mapping of an axial High at a slow Spreading Ridge: Speiss Ridge at the Bouvet Triple Junction, *InterRidge News*, 4, No. 1, 23, 1995.
- 139 Bonatti E. and **M. Ligi**, L'evoluzione dell'Atlantico Equatoriale, *Le Scienze*, 305, 33-44, 1994.
- 140 Argnani A., G. Bortoluzzi, P. Favali, F. Frugoni, M. Gasperini, **M. Ligi**, M. Marani, G. Mattietti and G. Mele, Foreland tectonics in the Southern Adriatic Sea, *Memorie della Societa' Geologica Italiana*, 48, 573-578, 1994.
- 141 Bonatti E., **M. Ligi**, L. Gasperini, G. Carrara and E. Vera, Imaging Crustal Uplift, Emersion and Subsidence at the Vema Fracture Zone, *EOS Transaction of AGU*, 75, 371-372, 1994.
- 142 Argnani A., P. Favali, F. Frugoni, M. Gasperini, **M. Ligi**, M. Marani, G. Mele, A. Pitarka and P. Shuterigi, Assetto strutturale e sismicità dell'offshore albanese, *Atti del 12° Convegno G.N.G.T.S.*, I, 663-664, 1993.
- 143 Colantoni P., **M. Ligi**, M.P. Morsiani and D. Penitenti, Morphology and recent sedimentary evolution of the western sicilian continental shelf, *UNESCO Reports in marine science*, 58, 93-98, 1993.
- 144 Argnani A., G. Bortoluzzi, P. Favali, F. Frugoni, M. Gasperini, **M. Ligi**, M. Marani, G. Mattietti and G. Mele, Foreland tectonics in the Southern Adriatic Sea, *Rapp. Comm. int. Mer Medit.*, Trieste, 33, 113, 1992.
- 145 Argnani A., G. Bortoluzzi, M. Gasperini, **M. Ligi** and M. Marani, Record of relative sea level rise on the Southern Adriatic Shelf, *Rapp. Comm. int. Mer Medit.*, Trieste, 33, 114, 1992.
- 146 Correggiari A., M. Field, G. Bortoluzzi, **M. Ligi** and D. Penitenti, Ridge and swale morphology on the North Adriatic epicontinental shelf, *Rapp. Comm. int. Mer Medit.*, Trieste, 33, 125, 1992.
- 147 Mark R.K., R.J. Pike, G. Bortoluzzi and **M. Ligi**, Mediterranean Seabed in Digital Shaded Relief, *EOS Transaction of AGU*, 72, 273-275, 1991.
- 148 Bonatti E., Y. Raznitsin, G. Bortoluzzi, F. Boudillon, G. de Alteriis, L. Gasperini, M. Gasperini, G. Giaquinto, **M. Ligi**, E. Lodolo, A. Mazarovich, A. Peyve, M. Sacchi, S. Skolotnev, V. Trofimov, N. Turko, M. Zacharov, J.M. Auzende, V. Mamalukas-Frangoulis and R. Searle, Geological studies of the eastern part of the Romanche Transform (equatorial Atlantic): a first report, *Giornale di Geologia*, 53/2, 31-48, 1991.
- 149 Argnani A., P. Favali, F. Frugoni, M. Gasperini, **M. Ligi**, M. Marani, G. Mattietti and G. Mele, Stili deformativi e sismicità nell'offshore garganico (Adriatico centro meridionale). *Atti del 10° Convegno G.N.G.T.S.*, I, 561-564, 1991.
- 150 Gasperini M., **M. Ligi**, S. Migliarini, P. Signanini and F. Tombolini, Esempio di prospezione sismica con onde trasversali polarizzate orizzontalmente, *Atti del 9° Convegno G.N.G.T.S.*, I, 587-599, 1990.
- 151 Argnani A., G. Bortoluzzi, A. Bozzani, A. Canepa, **M. Ligi**, V. Palumbo, P. Serracca and F. Trincardi, Sedimentary dynamics on the eastern Tyrrhenian margin, Italy. PS/87 Cruise report, *Giornale di Geologia*, 51, 165-178, 1989.
- 152 Pike R.J., F. Guzzetti, R.K. Mark, G. Bortoluzzi, **M. Ligi**, B. Bennet, W. Acevedo and G.P. Thelin, Synoptics Maps of Italy's topography from a digital elevation model, *Atti I Workshop Informatica e Scienze della Terra*, Sarnano, 27-1,27-7, 1989.

- 153 Colantoni P., G. Cremona, **M. Ligi** and F. Lamenza, Carta litomorfologica del Banco Avventura. *CNR/PFG Oceanografia, Sottoprogetto Piattaforma Continentale*, Ed. De Agostini Novara, 1987.
- 154 Bortoluzzi G. and **M. Ligi**, Acquisition and display of geographical data in conformal cartography: on-line and off-line applications. *Bollettino di Oceanologia Teorica ed Applicata*, 5, 173-197, 1987.
- 155 Trincardi F., M. Cipolli, P. Ferretti, J. La Morgia, **M. Ligi**, G. Marozzi, V. Palumbo, M. Taviani and N. Zitellini, Slope basin evolution on the eastern Tyrrhenian margin: preliminary report, *Giornale di Geologia*, 49, 1-9, 1987.
- 156 Colantoni P. and **M. Ligi**, Bathymetric Map of the Strait of Messina and its approaches, in Le Detroit de Messine (Italie), Evolution tectono-sédimentaire récente (Pliocène et Quaternaire) et environnement actuel. Ed. P. Barrier, I. Di Geronimo et C. Montenat, *Doc. et Trav., I GAL*, No. 11, Paris, 1987.
- 157 Bortoluzzi G., L. Gasperini, M. Gasperini, **M. Ligi** and C. Ori, Un sistema integrato per la prospezione sismica a riflessione, *Atti del 5° Convegno G.N.G.T.S*, II, 1231-1233, 1986
- 158 Gabbianelli G., P.J. Gillot, G. Lanzafame, **M. Ligi**, D. Postpitschl and P.L. Rossi, Controllo strutturale nell'evoluzione vulcanica di Panarea (Isole Eolie), *CNR IIV Open File Report*, 4/86, No. 2, 1986.
- 159 Gabbianelli G., P.J. Gillot, G. Lanzafame, **M. Ligi**, D. Postpitschl and P.L. Rossi, I rapporti tra tettonica e vulcanesimo nell'evoluzione dell'Isola di Panarea. *GNV Boll.* 1986, 297-298, 1986.
- 160 Colantoni P., G. Cremona, **M. Ligi**, A.M. Borsetti and F. Cati, The Adventure Bank (off south-western Sicily): a present day example of carbonate shelf sedimentation. *Giornale di Geologia* (Special Issue - In memoriam Raimondo Selli), 47, 165-180, 1985.
- 161 Gasperini P., **M. Ligi** and D. Postpitschl, Carta degli Epicentri. In: Catalogo dei Terremoti Italiani dall'anno 1000 al 1980. Ed. D. Postpischil, *CNR/PFG Geodinamica, Quaderni de "La Ricerca Scientifica"*, No. 114, Vol. 2B, 1985.

4. Technical Reports

- 162 **Ligi, M.**, Rasul, N., Vigliotti, L., Barbieri, E., Sanfilippo, A., Saeedi, A.O., Zahrani, A., Otaibi, Z.A., Subahi, H.H., Khorsheed, M.M., Jarees, A.M., Geochemistry of Igneous Rocks from Dykes and Harrats in Western Saudi Arabia – Field Report. *Technical Report SGS-TR-2020-5*, pp. 20, 2021.
- 163 **Ligi M.**, D. Scrocca, C. Doglioni, M. Cuffaro, M. Sacchi, G. Bortoluzzi, F. D'Oriano, M. Pastore, F. Muccini, S. Bigi, A. Maria Conte, A. Milia, C. Perinelli, G. Buffet and R. Hobbs (2010), Acquisition of multichannel seismic reflection profiles in the Central and Southern Tyrrhenian Sea. *ISMAR Bologna TECHNICAL REPORT*, 2010.
- 164 Argnani A, **M. Ligi**, M. Rovere, M. Cuffaro, F. D'Oriano, F. Frugoni, S. Carluccio, O. Donini, C. Palmiotto, V. Pasini, A. C. Salocchi, S. Selle and G. Tunioli (2008), Geophysical, geological and oceanographic surveys in the Gargano Area (Southern Adriatic Sea). Report on the Seismic Reflection and Morphobathymetric investigations during Cruise GARGANO-08 aboard R/V Urania, *ISMAR Bologna TECHNICAL REPORT*, 106, 2008.
- 165 Polonia A., G. Bortoluzzi, L. Gasperini, **M. Ligi**, G. Carrara, M. Cuffaro, F. D'Oriano, F. Riminucci, N. Zitellini, L. Torelli, R. Capozzi, D. Oppo, I. Viola, L. Minelli, F. Gallais, C. Carmisciano, M. Gambetta, M. Locritani, F. Muccini, S. Carone, A. LaTerra. Progetto CALAMARE – Calabrian Arc Marine Geophysical Experiment – Study of active deformation and seismic hazard assessment. Rapporto sulle indagini di sismica a riflessione, gravimetriche, magnetometriche, morfobatimetriche e campionamento fondo mare nell'Arco Calabro (Mar Ionio). *ISMAR Bologna TECHNICAL REPORT*, 105, 2008.
- 166 Bortoluzzi G., M. Ligi, M. Cuffaro, F. D'Oriano, V. Ferrante, E. Partiscano, F. Redini, A. Remia, F. Riminucci, C. Romagnoli, D. Casalbore, G. D' Anna, G. Mangano, S. Speciale, M. Manni, P.R. Pltania, S. Rapisarda, F. Caratori Tontini, L. Cocchi, T. Sgroi, G. Brancatelli, G. Meton, Rapporto preliminare sulle indagini di sismica a riflessione e rifrazione, morfobatimetriche e magnetometriche nel complesso dell'isola di Panarea (Eolie, Tirreno meridionale). Crociera PANA_07 con la N/O URANIA (01/09-August-2007). *ISMAR Bologna TECHNICAL REPORT*, 97, 2007.

- 167 Marsella E., P. Favali, M. Castellano, G. Aiello, G. Bortoluzzi, V. Di Fiore, **M. Ligi**, T. Sgroi, F. Frugoni, D. Patanè, S. Passaro, S. Ruggieri, V. Ferrante, P. Scotto Di Vettimo, M. Iavarone, G. Mangano, V. Augusti, M. Ciampi, W. De Cesare, M. La Rocca, S. Di Prima, S. Rapisarda, L. Zuccarello, R. Platania, D. Controfatto, M. Moretti, A. Govoni, S. Speciale, E. Marchetti, G. Lacanna, G. Ulivieri, R. Genco, D. Ilinskyi, N. R. Rinke - The Stromboli Geophysical Experiment - Preliminary report on wide angle refraction seismics and morphobathymetry of Stromboli Island (southern Tyrrhenian Sea, Italy) based on integrated offshore-onshore data acquisition (Cruise STR06 R/V Urania), *ISMAR Bologna TECHNICAL REPORT*, 102, 2006.
- 168 **Ligi M.**, Bonatti E., Skolotnev S., Peyve A., Grindlay N.R., Sclater J., Bortoluzzi G., Brunelli D., Cipriani A., Mercuri R., Muccini F., Paganelli E., Zaffagnini F., Takeuki C., Baramykov Y., Chamov N., Erofeev S., Eskin A., Kolodyazhnyy S., Pertsev A., Semenov V., Rastorgyev V., Tsukanov N., Turko N., Yefimov V. and Zотов L, Report on the morphobathymetric, magnetometric, gravimetric, multichannel reflection seismic and dredging investigations during cruise S23-AB06 aboard R/V A.N.Strakhov, *ISMAR Bologna TECHNICAL REPORT*, 100, 2006.
- 169 Bortoluzzi G., L. Gasperini, L. Bellucci, **M. Ligi**, A. Caprucci, S. Mosticchio, Ricerche geofisiche nel lago Trasimeno: rapporto sulle ricerche batimorfologiche, sismica a riflessione, magnetometriche e sedimentologiche durante le crociere TRASI-04 E TRASI-05, *ISMAR Bologna TECHNICAL REPORT*, 97, 2005.
- 170 Bonatti E., G. Bortoluzzi, A. Calafato, A. Cipriani, V. Ferrante, **M. Ligi**, M. Lopez Correa, F. Redini, G. Barabino, E. Carminati, N. Mitchell, B. Sichler, M. Schmidt, M. Schmitt, N. Rasul, S. Al Nomani, F. Bahareth, S. Khalil, R. Farawati, D. Gitto and M. Raspagliosi, Geophysical, geological and oceanographic surveys in the Northern Red Sea. Report on the morphobathymetric, magnetometric, oceanographic, coring and dredging investigations during cruise RS05 aboard R/V Urania, *ISMAR Bologna TECHNICAL REPORT*, 94, 2005.
- 171 Zitellini N., **M. Ligi**, L. Matias, M. Rovere & the Shipboard Scientific Parties, VOLTAIRE cruise (Valuation Of Large Tsunamis And Iberia Risk for Earthquakes), *ISMAR Bologna TECHNICAL REPORT*, 79, 2002.
- 172 Bortoluzzi G., E. Bonatti, L. Gasperini, **M. Ligi**, L. Capotondi, A. Blasi, G. Marozzi, A. Magagnali, M. Busetti, G. Serpi, M. Cormier, C. McHugh, L. Seeber, W. Ryan, N. Çagatay, Ö. Emre, K. Sarikavak, C. Imren, N. Okay, K. Eris, E. Hacioglu, M. Simsek, A. Bais, Geophysical and Geological Studies in the Sea of Marmara. Report on morphobathymetric, seismic and coring investigations during cruise MARMARA2001 with R/V Urania, *Rapporto Tecnico I.G.M.*, 70, 2001.
- 173 Bortoluzzi G., G. Carrara, F. Gamberi, M. Marani, **M. Ligi**, D. Penitenti, R. Portaro, G. Centorami, M. Rovere, N.C. Mitchell, C. Jacobs, I. Rouse, C. Flewellen, S. Whittle, J. Freire-Luis, N. Lourenco and P. Terrinha, Tectonic d Pressure growth of Giant Volcanic Ridges in the Azores Region (Atlantic Ocean). Report on TOBI side-scan sonar, swath bathymetry, SBP profiling and magnetic invetigations during cruise AZ99, *Rapporto Tecnico I.G.M.*, 53, 1999.
- 174 Bortoluzzi G., F. Gamberi, F. Frascari, **M. Ligi**, D. Penitenti, M. Roveri et al., Acquisizione di dati, sperimentazione di metodologie geofisiche e valutazione del loro impatto ambientale sul Fiume Po, In Rapporto Finale PROGETTO FIUME PO ENI, Regione Emilia Romagna e Istituto di Geologia Marina, Vol. I, II e III, 1998.
- 175 Bortoluzzi G., Brunelli D., Carrara G., Fabretti P., Penitenti D., Terenzoni M. **Ligi M.**, Bertozzi F., Peyve A., Skolotnev S., Turko N., Gilod D., Shirokohukhov B. and CGGA team, Nikanorenkov D. and NIPIO team, Sushchevskaya N., Geophysical and Geological studies in the Bouvet Triple Juction. Report on the morphobathymetric, geophysical, dredging and oceanographycal investigations durino cruise BVT96 aboard R/V Gelendzhik, ISMAR Bologna INTERIM TECHNICAL REPORT, Bologna, 1996.
- 176 Bonatti, E., **M. Ligi**, L. Gasperini, R. Sartori, ODP Drilling Proposal N. 468 - Vertical tectonics and origin of transform ridges and Drilling of carbonate platforms at the Romanche Fracture Zone (Equatorial Atlantic). ODP Proposal, 1995.

- 177 Masini L. and **M. Ligi**, Sistema di controllo e sincronizzazione cannoni sismici ad aria compressa,
Rapporto Tecnico I.G.M., 37, 1995.
- 178 Marani M., C. Savelli, F. Gamberi, **M. Ligi**, G. Bortoluzzi, G. Gasparotto, V. Landuzzi and D. Penitenti, - Potenzialita` giacentologiche e modello metallogenico di un settore sommerso dell'arco eoliano, in Ministero dell'Industria del Commercio dell'Artigianato, Direzione Generale delle Miniere Ricerca Mineraria di base (Legge 6 Ottobre 1982, n.752, art.4): "Arco vulcanico delle Eolie, relazione conclusiva sui lavori svolti" *AQUATER- ENI*, S. Lorenzo in Campo (PS) , 1995.
- 179 Bonatti E., G. Bortoluzzi, L. Gasperini, **M. Ligi**, N. Zitellini et al., Rapporto tecnico della Campagna Antartica: "Punto Triplo Bouvet - In P.N.R.A *Rapporti sulla campagna Antartica Estate Australe 1993-94*, ANT94/01, 472-504, 1994.

Bologna, September 5th, 2023



Dr. Marco Ligi