

Dear Editor,

we are very pleased that you found our revision comprehensive. In the reply below, we have used black fonts for the comments received and we adopt blue fonts for our reply.

In the companion pdf file (*[Compare Report] INSTANCE_Overleaf_revised_final.pdf*) that compares the previous version and the current one you will find all the modifications obtained using an advanced feature of the acrobat reader software. We adopted this software since we experienced problems with “latexdiff”. In this file you will also find some other minor changes (e.g., in Table 6 we changed the number of metadata for the NEIC dataset after contacting one of the authors of this dataset) and the citation of the panda software that was recently changed.

We are looking forward to hearing from you on the final decision.

Best regards,

Alberto Michelini

Dear Alberto Michelini and co-authors,

Many thanks for the very comprehensive revision of the manuscript as suggested by the referees.

Thank you

Before finally accepting the paper for publication, I would like to suggest a slight modification to the data availability section, where you newly added the seismic networks that you have used to derive your data. These sources for the data should also be properly cited and included in the “References” section of the article. Please use the following version of the paragraph (I am using track change mode) or organise the data sources as a small table.

We have made the modifications you suggested and, following your advice, we inserted a table in the data availability section that you can see below.

Table (7). Seismic networks used in the compilation of INSTANCE dataset

Code	Name	Identifier	Citation
3A	Seismic Microzonation Network 2016 Central Italy (2016-2016)	https://doi.org/10.13127/SD/ku7Xm12Yy9	Istituto Nazionale di Geofisica e Vulcanologia (INGV) et al. (2018)
AC	Albanian Seismological Network	https://doi.org/10.7914/SN/AC	Institute of Geosciences, Energy, Water and Environment (2002)
BA	UmBAS	https://www.fdsn.org/networks/detail/BA/	Universita della Basilicata (2005)
GU	Regional Seismic Network of North Western Italy	https://doi.org/10.7914/SN/GU	University of Genoa (1967)
HL	National Observatory of Athens Seismic Network	https://doi.org/10.7914/SN/HL	National Observatory of Athens, Institute of Geodynamics, Athens (1997)
IV	Italian National Seismic Network	https://doi.org/10.13127/SD/X0FXNH7QFY	INGV Seismological Data Centre (1997)
IX	Irpinia Seismic Network	http://isnet.unina.it/	Universita Federico II (2005)
MN	MedNet	https://doi.org/10.13127/SD/FBBBTD6Q	MedNet Project Partner Institutions (1988)
NI	North-East Italy Broadband Network	https://doi.org/10.7914/SN/NI	OGS (Istituto Nazionale di Oceanografia e di Geofisica Sperimentale) and University of Trieste (2002)
OT	OTRIONS	https://doi.org/10.7914/SN/OT	University of Bari "Aldo Moro" (2013)
OX	North-East Italy Seismic Network	https://doi.org/10.7914/SN/OX	Istituto Nazionale di Oceanografia e di Geofisica Sperimentale - OGS (2016)
RF	Friuli Venezia Giulia Accelerometric Network	https://doi.org/10.7914/SN/RF	University of Trieste (1993)
SI	Province Sudtirol	https://www.fdsn.org/networks/detail/SI/	ZAMG - Zentralanstalt für Meteorologie und Geodynamik (2006)
ST	Trentino Seismic Network	https://doi.org/10.7914/SN/ST	Geological Survey-Provincia Autonoma di Trento (1981)
TV	INGV experiments network	https://www.fdsn.org/networks/detail/TV/	Istituto Nazionale di Geofisica e Vulcanologia (INGV) (2008)
XO	EMERSITO Working Group. (2018)	https://doi.org/10.13127/SD/7TXcGdo5X8	EMERSITO Working Group (2018)
YD	INGV SISMIKO Emergency Seismic Network for Molise-Italy (2018-2018)	https://doi.org/10.13127/SD/FIR72CHYWU	Moretti et al. (2018)
ZM	Seismic Emergency for Ischia by Sismiko (2017-2021)	https://www.fdsn.org/networks/detail/ZM_2017/	Istituto Nazionale di Geofisica e Vulcanologia (INGV) (2017)

We think that the table format is probably optimal to acknowledge the contributing networks. All the column(s) information is (are) taken from the FDSN web site (<https://www.fdsn.org/networks/>) which reports either the DOI or the network URL information. In addition, all the Identifier and Citations are clickable. When performing this revision we realized that four networks (IV, MN, GU, BA) were missing and we added them and now the total number of 18 networks corresponds to those contained in the dataset.

All the networks are now included in the “References”.

In addition, since we have been using the latex template for the manuscript, we adopted the .bib files for the bibliography and these files are provided only for the networks with an assigned DOI. For the networks that have not been assigned a DOI, we have taken the information provided on the FDSN web site and created the corresponding .bib file.

Furthermore, I would like to encourage you to add all seismic networks that you are identifying as source for your data to the DOI landing page. Interestingly, all DOIs and URLs are already in the DataCite metadata, but unfortunately not visible on the DOI landing page.

The INSTANCE landing page (<http://www.pi.ingv.it/instance/>) has been adjourned following your encouragement and you find the link “INSTANCE dataset” within the “Data Sources” section (<https://data.ingv.it/en/dataset/471#related-doc>).

Please update this paragraph in the article (in the Data availability section):

The data used in this work were downloaded using the web services provided by INGV (http://terremoti.ingv.it/en/webservices_and_software). The following networks were used: OX: North-East Italy Seismic Network, <https://doi.org/10.7914/SN/OX> (OSG, 2016). ST: Trentino Seismic 10 Network, <https://doi.org/10.7914/SN/ST> (Geological Survey-Provincia Autonoma di Trento, 1981). SI: Province Sudtirol, No DOI is registered for this network (URL:

<https://www.fdsn.org/networks/detail/SI/>). XO: EMERSITO Working Group. (2018). <https://doi.org/10.13127/SD/7TXeGdo5X8> (EMERSITO Working Group, 2018). NI: North-East Italy Broadband Net-work <https://doi.org/10.7914/SN/NI> (OGS and University of Trieste, 2002). IX: Irpinia Seismic Network, <http://isnet.fisica.unina.it/>, No DOI is registered for this network. OT: OTRIONS, <https://doi.org/10.7914/SN/OT> (University of Bari “Aldo Moro”, 2013). RF: Friuli Venezia Giulia Accelerometric Network, <https://doi.org/10.7914/SN/RF> (University of Trieste, 1993). YD (2018- 2018): INGV SISMICO Emergency Seismic Network for Molise-Italy. TV: INGV experiments network, No DOI is registered for this network (INGV, 2008). AC: Albanian Seismological Network, <https://doi.org/10.7914/SN/AC> (Institute of Geosciences, Energy, Water and Environment, 2002). HL: National Observatory of Athens Seismic Network, <https://doi.org/10.7914/SN/HL> (National Observatory of Athens and Institute of Geodynamics, Athens, 1997). ZM (2017-2021): Seismic Emergency for Ischia by Sismiko, https://www.fdsn.org/networks/detail/ZM_2017/ (INGV, 2017) No DOI is registered for this network. 3A (2016-2016): Centro di microzonazione sismica Network, 2016 Central Italy seismic sequence, <https://doi.org/10.13127/SD/ku7Xm12Yy9> (INGV et al., 2018)

Please see the table inserted above.

These are the new references (to be included in the “References” section):

(please note that I also suggest to cite seismic networks (with URL) that are not assigned with a DOI)

OGS - Istituto Nazionale di Oceanografia e di Geofisica Sperimentale -: North-East Italy Seismic Network, <https://doi.org/10.7914/SN/OX>, 2016.

Geological Survey-Provincia Autonoma di Trento: Trentino Seismic Network, <https://doi.org/10.7914/SN/ST>, 1981.

ZAMG - Central Institute for Meteorology and Geodynamics. SI Province Südtirol Seismic Network. URL: <https://www.fdsn.org/networks/detail/SI/>, 2006

EMERSITO Working Group: Rete sismica del gruppo EMERSITO, sequenza sismica del 2016 in Italia Centrale, <https://doi.org/10.13127/SD/7TXEGDO5X8>, 2018.

OGS (Istituto Nazionale di Oceanografia e di Geofisica Sperimentale) and University of Trieste: North- East Italy Broadband Network, <https://doi.org/10.7914/SN/NI>, 2002.

University of Bari “Aldo Moro”: OTRIONS, <https://doi.org/10.7914/SN/OT>, 2013.

University of Trieste: Friuli Venezia Giulia Accelerometric Network, <https://doi.org/10.7914/SN/RF>, 1993.

Istituto Nazionale di Geofisica e Vulcanologia (INGV). TV INGV experiments network. URL: <https://www.fdsn.org/networks/detail/TV/>, 2008

Institute of Geosciences, Energy, Water and Environment: Albanian Seismological Network, <https://doi.org/10.7914/SN/AC>, 2002.

National Observatory of Athens, Institute of Geodynamics, Athens: National Observatory of Athens Seismic Network, <https://doi.org/10.7914/SN/HL>, 1997.

Istituto Nazionale di Geofisica e Vulcanologia (INGV). ZM (2017-2021) Seismic Emergency for Ischia by Sismiko (SEISk). URL: https://www.fdsn.org/networks/detail/ZM_2017/, 2017.

Istituto Nazionale di Geofisica e Vulcanologia (INGV), Istituto di Geologia Ambientale e Geoingegneria (CNR-IGAG), Istituto per la Dinamica dei Processi Ambientali (CNR-IDPA), Istituto di Metodologie per l'Analisi Ambientale (CNR-IMAA), and Agenzia Nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile (ENEA): Rete del Centro di Microzonazione Sismica (CentroMZ), sequenza sismica del 2016 in Italia Centrale, <https://doi.org/10.13127/SD/KU7XM12YY9>, 2018.

These are the new citations included in the article “References” section

EMERSITO Working Group: Rete sismica del gruppo EMERSITO, sequenza sismica del 2016 in Italia Centrale, <https://doi.org/10.13127/SD/7TXEGDO5X8>, <http://cnt.rm.ingv.it/instruments/network/XO>, 2018.

Geological Survey-Provincia Autonoma di Trento: Trentino Seismic Network, <https://doi.org/10.7914/SN/ST>, <https://www.fdsn.org/networks/detail/ST/>, 1981.

INGV Seismological Data Centre: Rete Sismica Nazionale (RSN), <https://doi.org/10.13127/SD/X0FXNH7QFY>, <http://cnt.rm.ingv.it/instruments/network/IV>, 1997.

Institute of Geosciences, Energy, Water and Environment: Albanian Seismological Network, <https://doi.org/10.7914/SN/AC>, <https://www.fdsn.org/networks/detail/AC/>, 2002.

Istituto Nazionale di Geofisica e Vulcanologia (INGV): INGV experiments network, <http://cnt.rm.ingv.it/instruments/network/TV>, 2008.

Istituto Nazionale di Geofisica e Vulcanologia (INGV): Seismic Emergency for Ischia by Sismiko (2017-2021), https://www.fdsn.org/networks/detail/ZM_2017/, 2017.

Istituto Nazionale di Geofisica e Vulcanologia (INGV), Istituto di Geologia Ambientale e Geoingegneria (CNR-IGAG), Istituto per la Dinamica dei Processi Ambientali (CNR-IDPA), Istituto di Metodologie per l'Analisi Ambientale (CNR-IMAA), and Agenzia Nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile (ENEA): Rete del Centro di Microzonazione Sismica (CentroMZ), sequenza sismica del 2016 in Italia Centrale,

<https://doi.org/10.13127/SD/KU7XM12YY9>, <http://cnt.rm.ingv.it/instruments/network/3A>, 2018.

Istituto Nazionale di Oceanografia e di Geofisica Sperimentale - OGS: North-East Italy Seismic Network, <https://doi.org/10.7914/SN/OX>, <https://www.fdsn.org/networks/detail/OX/>, 2016.

MedNet Project Partner Institutions: Mediterranean Very Broadband Seismographic Network (MedNet), <https://doi.org/10.13127/SD/FBBBTDTD6Q>, <http://cnt.rm.ingv.it/instruments/network/MN>, 1988.

Moretti, M., De Gori, P., Govoni, A., Margheriti, L., Piccinini, D., Pintore, S., and Valoroso, L.: Seismic Data acquired by the SISMIKO Emergency Group - Molise-Italy 2018 - T14, <https://doi.org/10.13127/SD/FIR72CHYWU>, <http://eida.ingv.it/en/networks/network/YD>, 2018.

National Observatory of Athens, Institute of Geodynamics, Athens: National Observatory of Athens Seismic Network, <https://doi.org/10.7914/SN/HL>, <https://www.fdsn.org/networks/detail/HL/>, 1997.

OGS (Istituto Nazionale di Oceanografia e di Geofisica Sperimentale) and University of Trieste: North-East Italy Broadband Network, <https://doi.org/10.7914/SN/NI>, <https://www.fdsn.org/networks/detail/NI/>, 2002.

Universita della Basilicata: UniBAS, <https://www.fdsn.org/networks/detail/BA/>, 2005.

Universita Federico II, N.: Irpinia Seismic Network, <https://www.fdsn.org/networks/detail/IX/>, 2005.

University of Bari "Aldo Moro": OTRIONS, <https://doi.org/10.7914/SN/OT>, <https://www.fdsn.org/networks/detail/OT/>, 2013.

University of Genoa: Regional Seismic Network of North Western Italy, <https://doi.org/10.7914/SN/GU>, <https://www.fdsn.org/networks/detail/GU/>, 1967.

University of Trieste: Friuli Venezia Giulia Accelerometric Network, <https://doi.org/10.7914/SN/RF>, <https://www.fdsn.org/networks/detail/RF/>, 1993.

ZAMG - Zentralanstalt fur Meteorologie und Geodynamik: Province Sudtiroil, <https://www.fdsn.org/networks/detail/SI/>, 2006.