

## **Modul de diseminare a rezultatelor**

Rezultatele obtinute in cadrul Etapei a IIa au fost disseminate pe pagina de internet a proiectului (<http://phenomenal.infp.ro/>) si pe pagina de facebook a INCDFP, au fost prezentate la Conferinte Nationale si Internationale si au fost publicate in articole stiintifice. Cu albastru sunt marcate articolele si prezentarile care au adus multumiri proiectului Phenomenal PED480/2020.

### **• PREZENTARI LA CONFERINTE**

#### **European Geosciences Union General Assembly, VEGU21: gather online, 19–30 aprilie 2021**

Biagi P. F., Ermini A., Boudjada M., Eichelberger H., Katzis K., Contadakis M., Skebelis C., Moldovan I., Bezzeghoud M., Nina A., Nico G.: A possible radio anomaly observed on the occasion of the MW=6.0 earthquake occurred in Dodecanese islands at the end of January 2020, EGU General Assembly 2021, online, 19–30 Apr 2021, EGU21-1047, <https://doi.org/10.5194/egusphere-egu21-1047>, 2021.

Boudjada M. Y., Eichelberger H. U., Biagi P. F., Schwingenschuh K., Nico G., Solovieva M., Ermini A., Moldovan I.A., Contadakis M. E., Nina A., Katzis K., Bezzeghoud M., Lammer H., Galopeau P. H. M., Besser B., Aydogar Ö.: Ray paths of VLF/LF transmitter radio signals in the seismic Adriatic regions, EGU General Assembly 2021, online, 19–30 Apr 2021, EGU21-7659, <https://doi.org/10.5194/egusphere-egu21-7659>, 2021.

Moldovan I. A., Mihai A., Toader V. E., Enescu B. D., Ghita C.: The geomagnetic field behavior inside Vrancea zone (Romania) in correlation with tectonic, atmospheric and solar activity, EGU General Assembly 2021, online, 19–30 Apr 2021, EGU21-15517, <https://doi.org/10.5194/egusphere-egu21-15517>, 2021 (prezentare orala).

Nico G., Biagi P. F., Ermini A., Boudjada M. Y., Eichelberger H. U., Katzis K., Contadakis M., Skeberis C., Moldovan, I. A., Bezzeghoud M., Nina A.: Wavelet analysis applied on temporal data sets in order to reveal possible pre-seismic radio anomalies and comparison with the trend of the raw data, EGU General Assembly 2021, online, 19–30 Apr 2021, EGU21-5154, <https://doi.org/10.5194/egusphere-egu21-5154>, 2021.

#### **Sesiunea Stiintifica Anuala a Facultatii de Fizica, Universitatea Bucuresti, 18 iunie 2021**

Coman A., Manea E. F., Cioflan C. O., Radulian M. Investigations on the behavior of the sedimentary structure during earthquakes: the correlation between f0 and fpred, Bucharest University, Faculty of Physics Atmosphere and Earth Science, online meeting, 18 June 2021 (prezentare orala).

Mihai A., Moldovan IA., Toader V. E., Radulian M. (2021), The geomagnetic field variations recorded in Vrancea zone during 2000-2008 and the seismic energy release, Bucharest University, Faculty of Physics, Atmosphere and Earth Science, online meeting, 18 June 2021 (prezentare orala).

#### **XXI<sup>th</sup> International Multidisciplinary Scientific Geoconference Surveying, Geology and Mining, Ecology and Management – SGEM 2021, 15-22 august 2021**

Ghita C., Raicu R., Constantinescu E. G., Moldovan I. A., Estimating the magnitude of completeness and spatial variation of seismic b value for Vrancea area (Romania), crustal earthquakes for the last three decades, XXI<sup>th</sup> International Multidisciplinary Scientific GeoConference Surveying, Geology and Mining, Ecology and Management – SGEM 2021 (prezentare poster).

Placinta A.O., Borleanu F., Popescu E., Radulian M., Source parameters, clustering and scaling properties for the Vrancea (Romania) subcrustal earthquakes recorded between 2016 and 2018, XXI<sup>th</sup> International Multidisciplinary Scientific GeoConference Surveying, Geology and Mining, Ecology and Management – SGEM 2021 (prezentare poster).

#### **Joint Scientific Assembly IAGA-IASPEI 2021, 21-27 august 2021**

Mihai A., Oros E., Placinta A.O., Moldovan I.A., Seismotectonic implications of the earthquakes sequence generated in the Southern Carpathians, Orsova June-July 2020 (Romania), Joint Scientific Assembly IAGA-IASPEI 2021, online, 21-27 august 2021 (prezentare orala).

Mihai A., Moldovan I.A., Toader V., Muntean A., Placinta A.O., The geomagnetic variations and their relation to seismic energy release in the Vrancea seismic zone, Joint Scientific Assembly IAGA-IASPEI 2021, online, 21-27 august 2021 (prezentare orala).

Mihai A., Apostol A., Muntean A., Moldovan I.A., Toader V., B. Ambrosius, A possible slow-slip-event in Vrancea (Romania) seismic zone, Joint Scientific Assembly IAGA-IASPEI 2021, online, 21-27 august 2021 (prezentare orala).

Petrescu L., Borleanu F., Radulian M., Ismail-Zadeh A., Matenco L. "Tectonic regimes and stress patterns in the Vrancea Seismic Zone: insights into intermediate-depth earthquake nests in locked collisional settings" IAGA-IASPEI 2021 (prezentare orala).

### **Virtual 37th General Assembly of the European Seismological Commission – ESC 2021, 6-11 septembrie 2021**

Coman A., Manea E.F., Radulian M., Győri E., Mihai M., Local site effects investigations along the Pannonian Basin, Virtual 37th General Assembly of the European Seismological Commission, ESC 2021, 6-11 Septembrie 2021, online (prezentare poster).

Coman A., Manea E.F., Cioflan C.O., Poggi V., Michel C., Bedrock depth variability along the extra - Carpathian area of Romania, Virtual 37th General Assembly of the European Seismological Commission, ESC 2021, 6-11 Septembrie 2021, online (prezentare orala).

Constantin A.P., Moldovan I.A., Partheniu R., Grecu B., Ionescu C., Regression analysis of macroseismic intensity and ground motion parameters for the Vrancea (Romania) subcrustal earthquakes, Virtual 37th General Assembly of the European Seismological Commission, ESC 2021, 6-11 Septembrie 2021, online (prezentare poster).

Merino J.J.G., Molina S., Kharazian A., Toader V., Moldovan I.A., Gómez I., A comparative study between the Gutenberg-Richter law parameters and radon temporal series for Operational Earthquake Forecasting, Virtual 37th General Assembly of the European Seismological Commission, ESC 2021, 6-11 Septembrie 2021, online (prezentare orala).

Moldovan I.A., Constantin A.P., Mihai A., Petrescu L., Toader V., Ghita C., Is the magnetic field behavior a reliable parameter for an Operational Earthquake Forecast (OEF) of moderate size earthquakes? Virtual 37th General Assembly of the European Seismological Commission, ESC 2021, 6-11 Septembrie 2021, online (prezentare poster).

Petrescu L., Stuart G., Houseman G., Bastow I., Upper mantle deformation signatures of craton-orogen interaction in the Carpathian-Pannonian region from SKS anisotropy analysis, Virtual 37th General Assembly of the European Seismological Commission, ESC 2021, 6-11 Septembrie 2021, online (prezentare orala).

### **11th Congress of the Balkan Geophysical Society – BGS 2021**

Moldovan I.A., Enescu B.D., Ghita C., Ionescu C., Marmureanu A., A possible seismic gap in Vrancea (Romania) zone at depths below 150Km, 11th Congress of the Balkan Geophysical Society, BGS 2021, Topic 001 Earth Physics, Geodynamics and Seismology/ 1.1 Seismicity, Seismotectonics and Geodynamics (prezentare orală).

### **The 2021 International Lithosphere Program (ILP) Sedimentary Basins Task Force (VI), Rueil Malmaison, Franta, 17-19 noiembrie 2021**

Borleanu F., Petrescu L., Seghedi I., Thomas C., De Siena L. Spatial variations of scattering and absorption features in the crust of the Eastern Carpathians and surroundings, revealed by attenuation tomography, The 2021 International Lithosphere Program (ILP) Sedimentary Basins Task Force (VI), 17-19 November, 2021, Rueil Malmaison, Franta (prezentare poster).

### **• ARTICOLE PUBLICATE IN VOLUMELE CONFERINTELOR**

#### **XXI<sup>th</sup> International Multidisciplinary Scientific GeoConference Surveying, Geology and Mining, Ecology and Management – SGEM 2021**

Placinta A.O., Borleanu F., Popescu E., Radulian M. (2021), Source parameters, clustering and scaling properties for the Vrancea (Romania) subcrustal earthquakes recorded between 2016 and 2018, XXI<sup>th</sup>

International Multidisciplinary Scientific GeoConference Surveying, Geology and Mining, Ecology and Management – SGEM 2021 (accepted for publication in the conference volume).

Ghita C., Raicu R., Constantinescu E.G., Moldovan I.A., (2021) Estimating the magnitude of completeness and spatial variation of seismic b value for Vrancea area (Romania), crustal earthquakes for the last three decades, XXI<sup>th</sup> International Multidisciplinary Scientific GeoConference Surveying, Geology and Mining, Ecology and Management – SGEM 2021 (accepted for publication in the conference volume).

### **11th Congress of the Balkan Geophysical Society – BGS 2021**

Moldovan I.A., Enescu B.D., Ghita C., Ionescu C., Marmureanu A, A possible seismic gap in Vrancea (Romania) zone at depths below 150 km, Conference Proceedings, 11th Congress of the Balkan Geophysical Society, Oct 2021, Volume 2021, p.1 – 5, DOI: <https://doi.org/10.3997/2214-4609.202149BGS57>.

#### **• ARTICOLE ISI**

- Coman A., Manea E.F., Radulian M., Effects of soft soils on seismic ground motion in the Centre and Western Romania, Romanian Journal of Physics 66, 7-8, 810, 2021.
- Constantin A.P., Moldovan I.A., Partheniu R., Grecu B., Ionescu C., Correlations between macroseismic Intensity values and ground motion Measures of Vrancea (Romania) subcrustal earthquakes, Romanian Journal of Physics 66, 5-6, 808, 2021.
- Constantin A.P., Moldovan I.A., Partheniu R., Grecu B., Ionescu C., Relationships between macroseismic intensity and peak ground acceleration and velocity for the Vrancea (Romania) subcrustal earthquakes. Annals of Geophysics, 64, 4, SE432, doi:10.4401/ag-8448, 2021.
- Ghita C., Diaconescu M., Raicu R., Moldovan I.A., The analyses of the seismic sequence recorded on November 22 2014 based on ETAS model, Romanian Reports in Physics, Volume 73, Art No 708, 2021.
- Ionescu C., Popa M., Neagoe C., Ghica D. V., Seismic Monitoring and Data Processing at the National Institute for Earth Physics – Romania. Summary of the Bulletin of the International Seismological Centre, 55(I), 30 - 42. <https://doi.org/10.31905/33JMP4MA>, Published 2021-02-09, 2021.
- Manea E. F., Coman A., Cioflan C.O., Evaluation of the predominant frequency of sedimentary layers resonance using the Vrancea crustal event of November 22, 2014. Romanian Reports in Physics, 73, 709, 2021.
- Mihai A., Moldovan I.A., Toader V.E., Radulian M., The Geomagnetic Field Variations Recorded in Vrancea Zone During 2008-2013 And the Seismic Energy Release, Romanian Reports in Physics, vol.73, nr.2, article number 705, 2021.
- Mihai A., Moldovan I.A., Toader V.E., Radulian M., The geomagnetic field variations recorded in Vrancea zone during 2008-2013 and the seismic energy release, Romanian Reports in Physics, Volume 73, Nr.2, 2021.
- Moldovan I.A., Apostol A., Muntean A, Ghita C., Toader V.E., Ambrosius B., A possible slow-slip-event in the Vrancea seismic active region of Romania, Romanian Journal of Physics, 2021, acceptat pentru publicare.
- Oros E., Placinta A.O., Moldovan I.A., Seismicity, Active Stress Patern and Fault Reactivation Potential in South Carpathians, Romanian Journal of Physics, 2021, acceptat pentru publicare.
- Petrescu L., Borleanu F., Radulian M., Ismail-Zadeh A., Matenco L., Tectonic regimes and stress patterns in the Vrancea Seismic Zone: insights into intermediate-depth seismic nests in locked collisional settings, Tectonophysics, Volume 79, Article Number: 228688, Publisher January 20, 2021.
- Placinta A. O., Borleanu F., Popescu E., Radulian,M., Munteanu I., Earthquake Source Properties of a Lower Crust Sequence and Associated Seismicity Perturbation in the SE Carpathians, Romania, Collisional Setting, Acoustics, Vol. 3, No. 2, pp. 270-296, Multidisciplinary Digital Publishing Institute, iunie 2021.
- Toader V. E., Mihai A., Moldovan I.A., Ionescu C., Marmureanu A., Lingvay I., Implementation of a Radon Monitoring Network in a Seismic Area, Atmosphere, 12(8), 1041, 2021.

Toader V.E., Nicolae V., Moldovan I.A., Ionescu C., Marmureanu, A. Monitoring of Gas Emissions in Light of an OEF Application. *Atmosphere* 2021, 12, 26. <https://doi.org/10.3390/atmos12010026>.

- **CARTI/CAPITOLE IN CARTI**

Moldovan I.A., Constantin A.P., Manea M.L., Ardeleanu L., Rogozea M.M., Toma-Danila D., Manea E.F., Mihai A., Ghita C., Muntean A., Ionescu C., In Cercetari avansate privind monitorizarea si modelarea fenomenului seismic, precum si reducerea riscurilor asociate, Titlul capitolului: Sistem de evaluare rapidă a distribuției efectelor macroseismice, Editura Academie Romane, ISBN 978-973-27-3383-7, nr pagini 37, 2021.

### INDICATORI DE REZULTAT

<b>Tipul indicatorilor</b>	<b>Denumirea indicatorilor</b>	<b>UM/an</b>	<b>Valoare</b>
<b>Indicatori de rezultat</b>	Articole <i>publicate</i> in reviste indexate ISI	Nr.	5
	Articole <i>acceptate</i> in reviste indexate ISI	Nr.	3
	Articole <i>in evaluare</i> in reviste indexate ISI	Nr.	0
	Articole <i>publicate</i> in reviste indexate in baze de date internationale	Nr.	0
	Articole <i>acceptate</i> in reviste indexate in baze de date internationale	Nr.	0
	Articole <i>in evaluare</i> in reviste indexate in baze de date internationale	Nr.	2
	Brevete (sau cereri de brevet) Nationale	Nr.	0
	Brevete (sau cereri de brevet) Internationale	Nr.	0
	Participari conferinte	Nr.	13
	Carti	Nr.	0
	Capitole de carte	Nr.	1
	Produse	Nr.	0
	Produse Informatice	Nr.	0
	Tehnologii	Nr.	0
	Servicii	Nr.	0
	Servicii Informatice	Nr.	1
	Studii	Nr.	6
	Alte Rezultate	Nr.	0