



Vlad Constantin Manea

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DESPRE MINE

- Profesor - Cercetător - Centrul de Geoștiințe, Universitatea Națională Autonomă din Mexic (CGEO, UNAM)
- Membru regulat al Academiei Mexicane de Științe
- Responsabil Laborator de Geodinamică Computațională (LGC - Laboratorio de Geodinamica Computacional, CGEO, UNAM)
- Coresponsabil Laborator Universitar de Microtomografie de raze X (LUMIR - Laboratorio Universitario de Microtomografía de Rayos X, CGEO, UNAM) .
- Coresponsabil Laborator Național de Vizualizare Științifică Avansată (LAVIS - Laboratorio Nacional de Visualización Científica Avanzada), UNAM.

EDUCAȚIE ȘI FORMARE PROFESIONALĂ

Postdoctoral Scholar

Centro de Geociencias, Universidad Nacional Autónoma de México [2006 – 2007]

Adresă: Juriquilla, Queretaro (Mexic)

referinta: Dr. Luca Ferrari

Postdoctoral Scholar

Seismological Laboratory, CALTECH [2004 – 2006]

Adresă: Pasadena (Statele Unite)

referinta: Dr. Mike Gurnis

Doctor în Științele Pământului

Universidad Nacional Autónoma de México [2001 – 2004]

Adresă: Mexico D.F. (Mexic)

Studii aprofundate postuniversitare in SIG

Universitatea Tehnică de Construcții București, Facultatea de Hidrotehnică [1997 – 1999]

Adresă: Bucuresti

Master in inginerie geotehnică

Universitatea Tehnică de Construcții București, Facultatea de Hidrotehnică [1995 – 1996]

Adresă: Bucuresti (România)

Inginer geofizician

Universitatea București, Facultatea de Geologie și Geofizică [1992 – 1997]

Adresă: Bucuresti (România)

Inginer construcții hidrotehnice

Universitatea Tehnică de Construcții București, Facultatea de Hidrotehnică [1990 – 1995]

Adresă: Bucuresti (România)



EXPERIENȚA PROFESIONALĂ

Fellowship JSPS

Kobe University [01/07/2022 – 30/06/2023]

Localitatea: Kobe

Țara: Japonia

JSPS - Japan Society for the Promotion of Science

Cercetator titular B T.C.

Centro de Geociencias, Universidad Nacional Autonoma de Mexico [2007 – În curs]

Adresă: Juriquilla, Queretaro (Mexic)

Localitatea: Juriquilla, Queretaro

Țara: Mexic

activitate didactica si de cercetare

Profesor asignatura

Facultad de Ciencias, Unidad Multidisciplinaria de Docencias e Investigacion, UNAM [01/08/2012 – 31/12/2016]

Adresă: Queretaro (Mexic)

Predarea cursului de "Introducere in Geodinamica" la nivel licenta in cadrul Facultatii de Stiinte, Unitatea Multidisciplinara de Docenta si Cercetare de la UNAM.

Membru consiliu

MEC - CNECSDTI [06/2020 – În curs]

Localitatea: Bucuresti

Țara: România

-membru in Consiliul Național de Etică a Cercetării Științifice, Dezvoltării Tehnologice și Inovării (CNECSDTI)

Membru consiliu

MEC - CNECSDTI [2016 – 13/03/2017]

Adresă: Bucuresti

Țara: România

-membru in Consiliul Național de Etică a Cercetării Științifice, Dezvoltării Tehnologice și Inovării (CNECSDTI)

Membru consiliu

UNAM [08/2015 – 08/2016]

Adresă: Queretaro (Mexic)

Țara: Mexic

-membru al consiliului intern de evaluare al personalului academic (Consejo Interno) în cadrul Centrului de Geostiinte a Universității Naționale Autonome din Mexic, participând activ în evaluarea cazurilor de promoții și evaluarea generală a activității științifice.

Profesor invitat

Kobe University [10/2018 – 10/2018]

Localitatea: Kobe

Țara: Japonia



An sabatic

Institutul Național de Cercetare-Dezvoltare pentru Fizica Pământului [16/01/2017 – 01/09/2017]

Adresă: Magurele (România)

Localitatea: Măgurele

Țara: România

Profesor invitat

Kobe [04/2016 – 06/2016]

Localitatea: Kobe

Țara: Japonia

Profesor invitat

Kobe University [07/2015 – 08/2015]

Localitatea: Kobe

Țara: Japonia

Geotechnical acting chief

Tractebel Consulting Engineering, Romanian Branch. [1999 – 2001]

Adresă: Bucuresti (România)

Țara: România

- analize de laborator pentru soluri
- analize *in-situ* folosind penetrometrul HYSON 100 kN LW
- proiectare de drumuri, poduri și căi ferate
- proiectare structuri de sprijin pentru stabilizarea pantelor
- calcul de stabilitate pentru baraje

Acting chief geophysicist

Il Nuovo Castoro INC [1998 – 1999]

Adresă: (Libia)

Țara: Libia

Proiectul "The Great Man Made River"

-experiență în:

- procesarea și interpretarea datelor folosind soft geofizic specializat.
- efectuarea testelor de calibrare, utilizarea și depanarea echipamentelor Robertson Geologging LTD - U.K.
- aplicarea metodelor geofizice în gaura de sondă: Electrical Log (long and short normal), Natural Gamma, Three arm caliper, Four arm caliper, Cement bond log, Temperature/Conductivity Log, Dual Neutron Log, Gamma-Gamma Log, Video Inspection (CCTV Survey).

Junior Geophysicist

Il Nuovo Castoro INC [1997 – 1998]

Adresă: (Libia)

Țara: Libia

Proiectul "The Great Man Made River"

COMPETENȚE LINGVISTICE

Limbă(i) maternă(e): **română**



Altă limbă (Alte limbi):

engleză

COMPREHENSIVNE ORALĂ C2 CITIT C2 SCRIS C2
EXPRIMARE SCRISĂ C2 CONVERSAȚIE C2

spaniolă

COMPREHENSIVNE ORALĂ C2 CITIT C2 SCRIS C2
EXPRIMARE SCRISĂ C2 CONVERSAȚIE C2

franceză

COMPREHENSIVNE ORALĂ B2 CITIT B2 SCRIS A2
EXPRIMARE SCRISĂ A2 CONVERSAȚIE A2

COMPETENȚE DIGITALE

Supercomputing & parallel processing / Modelare matematica si calcul utilizand programe si coduri de calcul / Matlab / Vizualizare de date științifice

PERMIS DE CONDUCERE

Permis de conducere: B 04/07/2014 – 04/07/2024

PUBLICAȚII

WOS: nr. articole: 44 factor h: 24, nr. citari: 2206

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Loop profile: 92745

1. Yáñez-Cuadra, V., Ortega-Culaciati, F., Moreno, M., Tassara, A., Krumm-Nualart, N., Ruiz, J., Maksymowicz, A., Manea, M., Manea, V.C., Geng, J., Benavente, R., 2022. Interplate Coupling and Seismic Potential in the Atacama Seismic Gap (Chile): Dismissing a Rigid Andean Sliver.

Geophysical Research Letters, 49 (11), art. no. e2022GL098257,

IF-5.576; AIS-1.971. Citari_WOS=3. (Scor: nr_citări*0,4/na=3x0,4/11=0.11).

2. Nava Lara, S.V., Manea, V.C., 2022. Numerical models for slab tearing beneath southern Mexico and northern Central America,

Journal of South American Earth Sciences, 115, art. no. 103771,

IF-2.453; AIS-0.513. Citari_WOS=1. (Scor: nr_citări*0,4/na=1x0,4/2=0.2).

3. Manea, V.C., Armaș, I., Manea, M., Gheorghe, M., 2021. InSAR surface deformation and numeric modeling unravel an active salt diapir in southern Romania.

Scientific Reports, 11 (1), art. no. 12091,

IF-4.997, AIS-1.208. Citari_WOS=2. (Scor: nr_citări*0,4/na=2x0,4/4=0.2).

5. Sewell, E.G., Manea, V.C., 2021. Solving the Laplace Tidal Equations using Freely Available, Easily Extensible Finite Element Software,

Computers and Geosciences, 155, art. no. 104865,

IF-5.168, AIS-1.037. Citari_WOS=0. (Scor: nr_citări*0,4/na=0x0,4/2=0).



6. Cid, H.E., Carrasco-Núñez, G., Manea, V.C., Vega, S., Castaño, V., 2021. The role of microporosity on the permeability of volcanic-hosted geothermal reservoirs: A case study from Los Humeros, Mexico.

Geothermics, 90, art. no. 102020,

IF-4.566, AIS-0.915. Citari_WOS=6. (Scor: $nr_cit\ddot{a}ri*0,4/na=6x0,4/5=0.48$).

7. Manea, M., Manea, V.C., Ferrari, L., Orozco-Esquivel, T., 2019. Delamination of sub-crustal lithosphere beneath the Isthmus of Tehuantepec, Mexico: Insights from numeric modelling.

Journal of Geodynamics, 129, pp. 262-274,

IF-2.673 AIS-0.909. Citari_WOS=5. (Scor: $nr_cit\ddot{a}ri*0,4/na=5x0,4/4=0.5$).

8. Ji, Y., Yoshioka, S., Manea, V.C., Manea, M., Suenaga, N., 2019. Subduction thermal structure, metamorphism and seismicity beneath north-central Chile.

Journal of Geodynamics, 129, pp. 299-312,

IF-2.673 AIS-0.909. Citari_WOS=7. (Scor: $nr_cit\ddot{a}ri*0,4/na=7x0,4/5=0.56$).

9. Chen, M., Manea, V.C., Niu, F., Wei, S.S., Kiser, E., 2019. Genesis of Intermediate-Depth and Deep Intraslab Earthquakes beneath Japan Constrained by Seismic Tomography, Seismicity, and Thermal Modeling.

Geophysical Research Letters, 46 (4), pp. 2025-2036.

IF-5.576 AIS-1.971. Citari_WOS=12. (Scor: $nr_cit\ddot{a}ri*0,4/na=12x0,4/5=0.96$).

10. Suenaga, N., Yoshioka, S., Matsumoto, T., Manea, V.C., Manea, M., Ji, Y., 2019. Two-Dimensional Thermal Modeling of the Philippine Sea Plate Subduction in Central Japan: Implications for Gap of Low-Frequency Earthquakes and Tectonic Tremors.

Journal of Geophysical Research: Solid Earth, 124 (7), pp. 6848-6865.

IF-4.390 AIS-1.598. Citari_WOS=5. (Scor: $nr_cit\ddot{a}ri*0,4/na=5x0,4/6=0.33$).

11. Melgar, D., Ruiz-Angulo, A., Garcia, E.S., Manea, M., Manea, V.C., Xu, X., Ramirez-Herrera, M.T., Zavala-Hidalgo, J., Geng, J., Corona, N., Pérez-Campos, X., Cabral-Cano, E., Ramirez-Guzmán, L., 2018. Deep embrittlement and complete rupture of the lithosphere during the M w 8.2 Tehuantepec earthquake.

Nature Geoscience, 11 (12), pp. 955-960.

IF-21.531 AIS-7.467. Citari_WOS=36. (Scor: $nr_cit\ddot{a}ri*0,4/na=36x0,4/13=0.4$).

12. Ji, Y., Yoshioka, S., Manea, V.C., Manea, M., 2017. Seismogenesis of dual subduction beneath Kanto, central Japan controlled by fluid release.

Scientific Reports, 7 (1), art. no. 16864,

IF-4.997, AIS-1.208. Citari_WOS=7. (Scor: $nr_cit\ddot{a}ri*0,4/na=7x0,4/4=0.7$).

13. Cid, H.E., Carrasco-Núñez, G., Manea, V.C., 2017. Improved method for effective rock microporosity estimation using X-ray microtomography

Micron, 97, pp. 11-21.

IF-2.381, AIS-0.446. Citari_WOS=15. (Scor: $nr_cit\ddot{a}ri*0,4/na=15x0,4/3=2$).

14. Manea, V.C., Manea, M., Ferrari, L., Orozco, T., Valenzuela, R.W., Husker, A., Kostoglodov, V., 2017. A review of the geodynamic evolution of flat slab subduction in Mexico, Peru, and Chile.

Tectonophysics, 695, pp. 27-52.



IF-3.660, AIS-1.222. Citari_WOS=79. (Scor: $nr_cit\ddot{a}ri*0,4/na=79x0,4=4.51$).

15. Ji, Y., Yoshioka, S., Manea, V.C., Manea, M., Matsumoto, T., 2017. Three-dimensional numerical modeling of thermal regime and slab dehydration beneath Kanto and Tohoku, Japan.

Journal of Geophysical Research: Solid Earth, 122 (1), pp. 332-353.

IF-4.390 AIS-1.598. Citari_WOS=23. (Scor: $nr_cit\ddot{a}ri*0,4/na=23x0,4/5=1.84$).

16. Konrad-Schmolke, M., Halama, R., Manea, V.C., 2016. Slab mantle dehydrates beneath Kamchatka—Yet recycles water into the deep mantle.

Geochemistry, Geophysics, Geosystems, 17 (8), pp. 2987-3007.

IF-4.480 AIS-1.612. Citari_WOS=25. (Scor: $nr_cit\ddot{a}ri*0,4/na=25x0,4/3=3.33$).

17. Manea, V.C., Leeman, W.P., Gerya, T., Manea, M., Zhu, G., 2014. Subduction of fracture zones controls mantle melting and geochemical signature above slabs.

Nature Communications, 5, art. no. 5095,

IF-17.694 AIS-5.617. Citari_WOS=41. (Scor: $nr_cit\ddot{a}ri*0,4/na=41x0,4/5=3.28$).

18. Manea, V.C., Manea, M., Ferrari, L., 2013. A geodynamical perspective on the subduction of Cocos and Rivera plates beneath Mexico and Central America.

Tectonophysics, 609, pp. 56-81.

IF-3.660, AIS-1.222. Citari_WOS=69. (Scor: $nr_cit\ddot{a}ri*0,4/na=69x0,4/3=9.2$).

19. Franco, A., Lasserre, C., Lyon-Caen, H., Kostoglodov, V., Molina, E., Guzman-Speziale, M., Monterosso, D., Robles, V., Figueroa, C., Amaya, W., Barrier, E., Chiquin, L., Moran, S., Flores, O., Romero, J., Santiago, J.A., Manea, M., Manea, V.C., 2012. Fault kinematics in northern Central America and coupling along the subduction interface of the Cocos Plate, from GPS data in Chiapas (Mexico), Guatemala and El Salvador.

Geophysical Journal International, 189 (3), pp. 1223-1236.

IF-3.352, AIS-1.085. Citari_WOS=59. (Scor: $nr_cit\ddot{a}ri*0,4/na=59x0,4/18=1.31$).

20. Ferrari, L., Orozco-Esquivel, T., Manea, V., Manea, M., 2012. The dynamic history of the Trans-Mexican Volcanic Belt and the Mexico subduction zone.

Tectonophysics, 522-523, pp. 122-149.

IF-3.660, AIS-1.222. Citari_WOS=460. (Scor: $nr_cit\ddot{a}ri*0,4/na=460x0,4/4=46$).

21. Manea, V.C., Marta, M.P., Manea, M., 2012. Chilean flat slab subduction controlled by overriding plate thickness and trench rollback.

Geology, 40 (1), pp. 35-38.

IF-6.324, AIS-2.230. Citari_WOS=120. (Scor: $nr_cit\ddot{a}ri*0,4/na=120x0,4/3=16$).

22. Gurnis, M., Turner, M., Zahirovic, S., DiCaprio, L., Spasojevic, S., Müller, R., Boyden, J., Seton, M., Manea, V.C., Bower, D.J., 2012. Plate tectonic reconstructions with continuously closing plates.

Computers and Geosciences, 38 (1), pp. 35-42.

IF-5.168, AIS-1.037. Citari_WOS=195. (Scor: $nr_cit\ddot{a}ri*0,4/na=195x0,4/10=7.8$).

23. Capra, L., Manea, V.C., Manea, M., Norini, G. 2011. The importance of digital elevation model resolution on granular flow simulations: A test case for Colima volcano using TITAN2D computational routine.

Natural Hazards, 59 (2), pp. 665-680.



IF-3.158, AIS-0.643. Citari_WOS=22. (Scor: $nr_cit\ddot{a}ri*0,4/na=22x0,4/4=2.2$).

24. Manea, M., Manea, V.C., 2011. Curie point depth estimates and correlation with subduction in Mexico.

Pure and Applied Geophysics, 168 (8-9), pp. 1489-1499.

IF-2.641, AIS-0.597. Citari_WOS=46. (Scor: $nr_cit\ddot{a}ri*0,4/na=46x0,4/2=9.2$).

25. Manea, V.C., Manea, M., 2011. Flat-slab thermal structure and evolution beneath central Mexico.

Pure and Applied Geophysics, 168 (8-9), pp. 1475-1487.

IF-2.641, AIS-0.597. Citari_WOS=50. (Scor: $nr_cit\ddot{a}ri*0,4/na=50x0,4/2=10$).

26. Muñoz-Salinas, E., Castillo-Rodríguez, M., Manea, V., Manea, M., Palacios, D., 2010. On the geochronological method versus flow simulation software application for lahar risk mapping: A case study of popocatépetl volcano, Mexico.

Geografiska Annaler, Series A: Physical Geography, 92 (3), pp. 311-328.

IF-1.204, AIS-0.354. Citari_WOS=6. (Scor: $nr_cit\ddot{a}ri*0,4/na=6x0,4/5=0.48$).

27. Manea, V.C., Manea, M., Leeman, W.P., Schutt, D.L., 2009. The influence of plume head-lithosphere interaction on magmatism associated with the Yellowstone hotspot track.

Journal of Volcanology and Geothermal Research, 188 (1-3), pp. 68-85.

IF-2.986, AIS-0.822. Citari_WOS=21. (Scor: $nr_cit\ddot{a}ri*0,4/na=21x0,4/4=2.1$).

28. Johnson, E.R., Wallace, P.J., Delgado Granados, H., Manea, V.C., Kent, A.J.R., Bindeman, I.N., Donegan, C.S., 2009. Subduction-related volatile recycling and magma generation beneath Central Mexico: Insights from melt inclusions, oxygen isotopes and geodynamic models.

Journal of Petrology, 50 (9), pp. 1729-1764.

IF-4.371, AIS-1.719. Citari_WOS=119. (Scor: $nr_cit\ddot{a}ri*0,4/na=119x0,4/7=6.8$).

29. Muñoz-Salinas, E., Castillo-Rodríguez, M., Manea, V., Manea, M., Palacios, D., 2009. Lahar flow simulations using LAHARZ program: Application for the Popocatépetl volcano, Mexico.

Journal of Volcanology and Geothermal Research, 182 (1-2), pp. 13-22.

IF-2.986, AIS-0.822. Citari_WOS=45. (Scor: $nr_cit\ddot{a}ri*0,4/na=45x0,4/5=3.6$).

30. Pérez-Campos, X., Kim, Y.H., Husker, A., Davis, P.M., Clayton, R.W., Iglesias, A., Pacheco, J.F., Singh, S.K., Manea, V.C., Gurnis, M., 2008. Horizontal subduction and truncation of the Cocos Plate beneath central Mexico.

Geophysical Research Letters, 35 (18), art. no. L18303,

IF-5.576, AIS-1.971. Citari_WOS=222. (Scor: $nr_cit\ddot{a}ri*0,4/na=222x0,4/10=8.88$).

31. Portnyagin, M., Manea, V.C., 2008. Mantle temperature control on composition of arc magmas along the Central Kamchatka Depression.

Geology, 36 (7), pp. 519-522.

IF-6.324, AIS-2.230. Citari_WOS=31. (Scor: $nr_cit\ddot{a}ri*0,4/na=31x0,4/2=6.2$).

32. Manea, M., Manea, V.C., 2008. On the origin of El Chichón volcano and subduction of Tehuantepec Ridge: A geodynamical perspective.

Journal of Volcanology and Geothermal Research, 175 (4), pp. 459-471.

IF-2.986, AIS-0.822. Citari_WOS=41. (Scor: $nr_cit\ddot{a}ri*0,4/na=41x0,4/2=8.2$).



33. Manea, V., Gurnis, M. 2007. Subduction zone evolution and low viscosity wedges and channels.

Earth and Planetary Science Letters, 264 (1-2), pp. 22-45.

IF-5.795, AIS-2.200. Citari_WOS=97. (Scor: $nr_cit\ddot{a}ri * 0,4 / na = 97 \times 0,4 / 2 = 19.4$).

34. Muñoz-Salinas, E., Manea, V.C., Palacios, D., Castillo-Rodriguez, M., 2007. Estimation of lahar flow velocity on Popocatépetl volcano (Mexico).

Geomorphology, 92 (1-2), pp. 91-99.

IF-4.406, AIS-1.061. Citari_WOS=31. (Scor: $nr_cit\ddot{a}ri * 0,4 / na = 31 \times 0,4 / 4 = 3.1$).

35. Manea, V., Manea, M., Kostoglodov, V., Sewell, G., 2006. Intraslab seismicity and thermal stress in the subducted Cocos plate beneath central Mexico.

Tectonophysics, 420 (3), pp. 389-408.

IF-3.660, AIS-1.222. Citari_WOS=28. (Scor: $nr_cit\ddot{a}ri * 0,4 / na = 28 \times 0,4 / 4 = 2.8$).

36. Manea, M., Manea, V.C., Ferrari, L., Kostoglodov, V., Bandy, W.L., 2005. Tectonic evolution of the Tehuantepec Ridge.

Earth and Planetary Science Letters, 238 (1-2), pp. 64-77.

IF-5.795, AIS-2.200. Citari_WOS=44. (Scor: $nr_cit\ddot{a}ri * 0,4 / na = 44 \times 0,4 / 5 = 3.52$).

37. Manea, V.C., Manea, M., Kostoglodov, V., Sewell, G., 2005. Thermo-mechanical model of the mantle wedge in Central Mexican subduction zone and a blob tracing approach for the magma transport.

Physics of the Earth and Planetary Interiors, 149 (1-2 SPEC. ISS.), pp. 165-186.

IF-2.748, AIS-0.968. Citari_WOS=57. (Scor: $nr_cit\ddot{a}ri * 0,4 / na = 57 \times 0,4 / 4 = 5.7$).

38. Franco, S.I., Kostoglodov, V., Larson, K.M., Manea, V.C., Manea, M., Santiago, J.A., 2005. Propagation of the 2001-2002 silent earthquake and interplate coupling in the Oaxaca subduction zone, Mexico.

Earth, Planets and Space, 57 (10), pp. 973-985.

IF-3.362, AIS-1.079. Citari_WOS=52. (Scor: $nr_cit\ddot{a}ri * 0,4 / na = 52 \times 0,4 / 6 = 3.47$).

39. Manea, V.C., Manea, M., Kostoglodov, V., Currie, C.A., Sewell, G., 2004. Thermal structure, coupling and metamorphism in the Mexican subduction zone beneath Guerrero.

Geophysical Journal International, 158 (2), pp. 775-784.

IF-3.352, AIS-1.085. Citari_WOS=62. (Scor: $nr_cit\ddot{a}ri * 0,4 / na = 62 \times 0,4 / 5 = 4.96$).

PUBLICAȚII - BDI

1. Caracheo-Gonzalez, J.J., Manea, M., Manea VC., Armas, I., 2022. Geodynamical comparative study regarding the salt domes of two different depositional environments: Mexico and Romania,

GeoPatterns, vol. VIII, pp. 6-20, DOI: 10.5719/GeoP.7/1

2. Manea, V.C., Manea, M., Pomeran, M., Besutiu, L., Zlagnean, L., 2012. Computational Fluid Dynamics in Solid Earth Sciences—a HPC challenge.

Acta Universitaria, 22(7), 32-36. 10.15174/au.2012.357



3. Manea, V.C., Manea, M., Pomeran, M., Besutiu, L., Zlagnean, L., 2012. A parallelized particle tracing code for CFD simulations in Earth sciences.

Acta Universitaria, 22(5), 12-18. 10.15174/au.2012.358

4. Manea, M., Manea, V.C., Kostoglodov, V., and Guzmán-Speziale, M., 2005. Elastic Thickness of the Lithosphere below the Tehuantepec Ridge.,

Geofisica Internacional, vol. 44, no 2, pp. 157-168. Fi = 0.34. DOI: 10.22201/igeof.00167169p.2005.44.2.250

5. Manea, M., Manea, V.C., and Kostoglodov, V., 2003. Sediment fill of the Middle America Trench inferred from the gravity anomalies,

Geofisica Internacional, vol. 42, no. 4, pp. 603-612. Fi = 0.17. DOI: 10.22201/igeof.00167169p.2003.42.4.314

6. Kostoglodov, V., Bilham, R., Santiago, J.A., Manea, V.C., Manea, M., and Hernandez, V., 2002. Long-baseline fluid tiltmeter for seismotectonics studies of Mexican subduction zone,

Geofisica Internacional, vol. 41, no. 1, pp. 11-25. Fi = 0.21. DOI: 10.22201/igeof.00167169p.2002.41.1.257

PUBLICATII - VOLUME POSTCONFERINTA

1. Besutiu, L., Manea, V.C., Pomeran, M., 2017. Vrancea seismic zone as an unstable triple junction: New evidence from observations and numerical modelling.

9th Congress of the Balkan Geophysical Society, BGS 2017, 2017-November, DOI: 10.3997/2214-4609.201702541

2. Carrasco Núñez, G., Arzate Flores, J., Berna Uruchurtu, J.P., Carrera Hernández, J.J., Cedillo Rodríguez, F., Dávila Harris, P., Hernández Rojas, J., Hurwitz, S., Lermo Samaniego, J.F., Levresse Gilles, P.R., López Quiroz, P., Manea, V.C.,

Norini, G., Santoyo Gutiérrez, E.R., Willcox, C., 2015. A new geothermal exploration program at Los Humeros volcanic and geothermal field (Eastern Mexican Volcanic Belt),

in: **Proceedings World Geothermal Congress**. Melbourne, Australia, p. 10.

(<http://158.97.8.102/xmlui/handle/123456789/398>)

3. Manea, V.C. and Manea, M., 2010. Advanced Computing infrastructure for Research in Geodynamics,

ISUM Conference Proceedings, Transforming Research through High Performance Computing, Torres Martinez, M., ed. Vol. 1, ISBN: 978-607-450-348-7.

4. Manea, M. and Manea, V.C., 2010. 3d Visualization for Research and Teaching in Geosciences,

ISUM Conference Proceedings, Transforming Research through High Performance Computing, Torres Martinez, M. ed., Vol. 1, ISBN: 978-607-450-348-7.

PUBLICAȚII - CAPITOLE DE CARTE

1. Manea, V.C., Arteaga, D., Manea, M., Lazar, D., Vega, S., Carrasco-Núñez, G., 2023. Trovants: The "Living" Stones of Romania Formed as High Porosity Spherical Sandstone Concretions Developed Around a Fossil.

In: Médiçi, E.F., Otero, A.D. (eds) **Album of Porous Media**. Springer, Cham. doi: 10.1007/978-3-031-23800-0_19

2. Manea, V.C., Manea, M., 2007. Thermal models beneath Kamchatka and the Pacific Plate rejuvenation from a mantle plume impact,

Geophysical Monograph Series, 172: Volcanism and Subduction: The Kamchatka Region, pp. 77-89. DOI: 10.1029/172GM07



3. Manea, V.C., Manea, M., 2006. Origin of the modern Chiapanecan Volcanic arc in southern México inferred from thermal models,

Special Paper of the Geological Society of America, 412 (412), pp. 27-38. DOI: 10.1130/2006.2412(02)

4. Manea, V.C. and Manea, M., 2009. Thermally induced stresses beneath the Vrancea area, Integrated research on the intermediate depth earthquake genesis within Vrancea zone,

În Beșuțiu, L. (Ed.), Vergiliu Publishing House pp.172-183. ISBN 978-973-7600-59-2.

5. Manea, V.C., Manea, M., Kostoglodov, V., Sewell, G., 2005. Thermal models, magma transport, and velocity anomaly estimation beneath southern Kamchatka,

Special Paper of the Geological Society of America, 388, pp. 517-536. DOI: 10.1130/0-8137-2388-4.517

PUBLICAȚII - GUEST EDITOR

1. Manea, V.C., Manea, M., Chen, M., van Hunen, J., Konrad-Schmolke, M., 2020. Editorial: Unusual Subduction Processes,

Frontiers in Earth Science, 8, art. no. 607697, DOI: 10.3389/feart.2020.607697

PROIECTE

1. Proiecte Romania

1.1. PI al echipei de cercetare

1. Subducția neregularităților batimetrice ale plăcilor oceanice (munți submarini și zone de fractură) și impactul asupra marginilor de plăci active – Submarin (Proiecte de cercetare exploratorie - PN-II-P4-ID-PCE-2020-2 - PN-III-P4-ID-PCE-2020-0977) Buget aprox. 1,200,000 RON.

2. Cyberinfrastructure for Geodynamic studies related with the Vrancea Seismic Zone – CyberDyn (Programul Operațional Sectorial "Creșterea Competitivității Economice" POS CCE O212 ID 593 grant de cercetare, Romania, Call 2010). Buget aprox 7,000,000 RON.

1. Proiecte Romania

1.2. Participant in echipe de cercetare

1. 2017 – 2019 -Remote-controlled CCD astro-geodetic zenith instrument for determination of the vertical deviation – ASTROZEN (STAR C3 RoSA project, ID 510).

2: Proiecte Internationale (Mexic, Japonia, USA, EU)

2.1. PI al echipei de cercetare

1. 2022-2023 - JSPS fellowship - Seismicity distribution and seamounts and fracture zones subduction in Japan and Mexico

2. Numerical modeling for plate deformations in southern Mexico using a supercomputer cluster (CONACyT 84035 – Call 2008). Mexico. Buget>100.000 lei.

3. Heat-flow estimation and its relationship with slab subduction in Mexico using aeromagnetic anomalies (PAPIIT IN110709 – Call 2010). Mexico. Buget>100.000 lei.

4. Structural architecture of large stratovolcanoes from the Trans Mexican Volcanic Belt and their relation with geology and volcanic hazard. (CONACyT 132265 - Call 2011). Buget>100.000 lei.

5. Geodinamic modelling of Colima volcanic complex. (PAPIIT IN110412 – Call 2013). Buget>100.000 lei.

6. La influencia de la subduccion de a zona de fractura de Tehuantepec sobre la brecha sismica. (PAPIIT IN106315 – Call 2015). Mexico. Buget<100.000 lei.



2: Proiecte Internationale (Mexic, Japonia, USA, EU)

2.2. Participant in echipe de cercetare

1. Interseismic deformation monitoring in central Mexico, Guerrero, using high precision tiltmeter (CONACyT 27868-T, UNAM, Mexico- participant 2001-2003). Buget>100.000 lei.
2. Interseismic and preseismic deformation monitoring along the Mexican Pacific coast (PAPIIT IN104599, UNAM, Mexico). Buget>100.000 lei.
3. Geodetic and seismic constraints of slip rheology on the Guerrero coast of Mexico (joint cooperation UNAM, Mexico - University of Colorado, USA-participant 2001-2003). Buget>100.000 lei.
4. Seismo-tectonic study of the western boundary between the Caribbean and North American tectonic plates. (CONACyT 36449-T). Buget>100.000 lei.
5. Seismo-tectonic study of the Guerrero seismic gap, in Central Mexico. (CONACyT 37293-T, Mexico). Buget>100.000 lei.
6. Seismo-tectonic study of the crust deformations related with the seismic cycle in subduction zones, Mexico (DGAPA INI104801, Mexico). Buget>100.000 lei.
7. Seismic cycle and the crust deformation in the subduction zone, Mexico. (PAPIIT IN102105, UNAM, Mexico). Buget>100.000 lei.
8. Seismo-tectonics of Michoacán, Mexico: 20 years after the 19th of Septiembre, 1985 earthquake. (CONACyT 46064-T, UNAM, Mexico). Buget>100.000 lei.
9. Igneous petrogenesis and subduction dynamics in the incipient evolutionary stages of the Trans Mexican Volcanic Belt. (CONACyT 58373). Buget>100.000 lei.
10. Aseismic events and nonvolcanic tremors: advanced study on the Mexican subduction (CONACyT). Buget>100.000 lei.
11. Coldef Surface deformation of the Colima Volcanic Complex and its basement (ESA-European Space Agency). Buget>100.000 lei.
12. National Laboratory for advanced Scientific Visualization – CONACyT 232722 – participant, Convocatoria: I0027-2014-01. Buget>100.000 lei.
13. Mexico-Japan project - SATREPS – Evaluation of the hazard associated with megaeearthquakes and tsunamis along the Mexican Pacific coast for disaster mitigation. (Solid earth and tsunami modelling). Buget>100.000 lei.
14. Advanced Visualizacion for Scientific Data – CONACyT-253607; 2014 Call "INFR-2015-01". Buget>100.000 lei.
15. Multidisciplinary-multiscale study for the volcanism associated to subduction in Mexico - PAPIIT-IN109613; 2012 Call. Buget>100.000 lei.
16. The origin of El Chichon volcano using 3D numerical modelling – PAPIIT IN115810; 2009 Call. Buget>100.000 lei
17. High Performance Computer Cluster for numerical modelling of geodynamical processes - PAPIIT INI05607; 2006 Call. Buget>100.000 lei.

CONFERINȚE ȘI SEMINARE

Conferințe

- Participare în aproximativ 100 conferințe și congrese, cu prezentări orale, poster și organizari de sesiuni speciale. (~150 de abstracte la European Geosciences Union, American Geophysical Union, Geological Society of America, Union Geofisica Mexicana, Japan Geoscience Union, etc).
- Prelegeri invitate la universități de prestigiu (U. Utah, U. Texas, U. Kobe)
- Organizare de sesiuni speciale/workshopuri



REȚELE ȘI AFILIERI

Afilieri

- Membru al: American Geophysical Union (AGU) (din 2002);
- Mexican Geophysical Union (UGM) (din 2001);
- European Geophysical Union (EGU) (din 2003);
- Geological Society of America (GSA) (din 2003)

DISTINȚII ONORIFICE ȘI PREMII

Distinții

- Iul 2022 - Iun 2023 - JSPS Fellowship (Japan Society for of Science)
- Apr-Iun 2016 - PASPA scholarship for research (UNAM) at University of Kobe, Japan.
- oct 2015-Best Scientific Photography Award, 2nd place, UNAM
- Aug-Sep 2015 – Invited researcher, University of Kobe, Japan.
- 2012-Programa SNI Nivel 1, CONACyT
- 2012-PRIDE C
- 2009 – Programa SNI Nivel 1, CONACyT
- 2008 - Programa de Apoyo a la Incorporación de Personal Académico (PAIPA), Nivel C, Universidad Nacional Autónoma de México.
- Feb, 2007 - Best PhD Thesis 2004-2005 granted by the "Dirección General de Estudios de Posgrado" and "Programa de Posgrado en Ciencias de la Tierra" from UNAM
- Apr 7, 2006 - Alfonso Caso Medal, granted by UNAM for the best graduate student within the PhD program in Sciences
- Apr 1-3, 2003 - Best Presentation within the category of Graduate Students, oral presentations, The Geological Society of America, Cordilleran Section, PuertoVallarta (Jalisco, Mexico)
- 2001-2004 - DGEP (Dirección General de Estudios de Posgrado), PhD scholarship, UNAM, Mexico.
- Mar - Iun 2000 - ERASMUS-SOCRATES scholarship - Landslide hazardassessment using statistical methods (univariate, multivariate analysis, etc.) within a GIS software package; Salzburg University, Austria.

CURSURI

Cursuri

2022

- "Geodynamics", Postgraduate Programme, Geosciences Centre, UNAM. Semester 2023-1;

2021

- "Geodynamics", Postgraduate Programme, Geosciences Centre, UNAM. Semester 2022-1;

2020

- "Geodynamics", Postgraduate Programme, Geosciences Centre, UNAM. Semester 2021-1;

2019

- "Geodynamics", Postgraduate Programme, Geosciences Centre, UNAM. Semester 2020-1;

2018

- "Geodynamics", Postgraduate Programme, Geosciences Centre, UNAM. Semester 2019-1;

2017



- "Geodynamics", Postgraduate Programme, Geosciences Centre, UNAM. Semester 2018-1;
2016
- "Introduction to Geodynamics", BSc. Programme in Earth Sciences, Sciences Faculty, UNAM. Semester 2017-1.
2015
- "Introduction to Geodynamics", BSc. Programme in Earth Sciences, Sciences Faculty, UNAM. Semester 2016-1.
2014
- "Introduction to Geodynamics", BSc. Programme in Earth Sciences, Sciences Faculty, UNAM. Semester 2015-1.
2013
- "Introduction to Geodynamics", BSc. Programme in Earth Sciences, Sciences Faculty, UNAM. Semester 2014-1.
2012
- Research seminar. BSc. Programme in Technology: "Applicability of fluid mechanics in earth sciences". Applied Physics and Technology Centre, UNAM. Semesters 2012-2, 2013-1;
- "Introduction to Geodynamics", BSc. Programme in Earth Sciences, Sciences Faculty, UNAM. Semester 2013-1.
2011
- Research seminar. BSc. Programme in Technology: "Applicability of fluid mechanics in earth sciences". Applied Physics and Technology Centre, UNAM. Semesters 2012-1, 2011-2;
- "Plate Tectonics", Postgraduate Programme, Geosciences Centre, UNAM. Semester 2012-1.
2010
- "Plate Tectonics", Postgraduate Programme, Geosciences Centre, UNAM. Semester 2011-1;
- Research seminar. BSc. Programme in Technology: "Applicability of fluid mechanics in earth sciences". Applied Physics and Technology Centre, UNAM. Semesters 2010-2, 2011-1
2009
- "Geodynamics", Postgraduate Programme, Geosciences Centre, UNAM. Semester 2010-1;
- "Plate Tectonics", Postgraduate Programme, Geosciences Centre, UNAM. Semester 2010-1.
2008
- "Processing and visualization of geophysical data with open source software", Postgraduate Programme, Geosciences Centre, UNAM. Semester 2009-1;
- "Geodynamics", Postgraduate Programme, Geosciences Centre, UNAM. Semester 2008-2;
- "Plate Tectonics", Postgraduate Programme, Geosciences Centre, UNAM. Semester 2009-1.

CAMPANII DE MĂSURĂTORI DE TEREN

Campanii de măsurători de teren

- 14 – 24 Feb. 2005, GPS Campaign, Chiapas, Mexico; (a study for: Polochic - Montagua fault system and the contact between the North America and Caribbean Plates);- 28 Jan. – 10 Feb. 2004, GPS Campaign, Chiapas, Mexico; (a study for: Polochic - Montagua fault system and the contact between the North America and Caribbean Plates);
- 7 – 21 Feb. 2003, GPS Campaign, Chiapas, Mexico; (a study for: Polochic - Montagua fault system and the contact between the North America and Caribbean Plates);
- 11 – 25 Mar. 2002, Oceanographical campaign - Justo Sierra (UNAM): "PMAG01- Geophysical (Magnetic and Bathymetric Survey) Study for the Submarine Mountains in the Mexican Gulf";- Ago. 2001, GPS Campaign, Chiapas, Mexico; (a study for: Polochic - Montagua fault system and the contact between the North America and Caribbean Plates);



COMPETENȚE DE MANAGEMENT ȘI CONDUCERE

Coresponsabil LUMIR - Laborator Universitar de Microtomografie de raze X

Din 2016 - Coresponsabil Laborator Universitar de Microtomografie de raze X (LUMIR - Laboratorio Universitario de Microtomografía de Rayos X, Centro de Geociencias, Universidad Nacional Autónoma de México) .

Co responsabil LAVIS

Din 2015 fac parte din consiliul de administratie al Laboratorului National de Vizualizare Stiintifica Avansata (LAVIS) din campusul Juriquilla al Universitatii Nationale Autonome din Mexic (UNAM). LAVIS reprezinta o initiativa comuna a Institutului de Neurobiologie si a Centrului de Geostiinte din cadrul UNAM.

Link: <https://lavis.unam.mx/nosotros/>

Responsabil LGC - Laboratorio de Geodinamica Computacional

-din 2008 - Responsabil Laborator de Geodinamică Numerică (LGC - Laboratorio de Geodinamica Computacional, Centro de Geociencias, Universidad Nacional Autónoma de México)

Consiliul director al AdASTRA

-din 2020 - membru in consiliul director

COMPETENȚE ORGANIZATORICE

Competențe organizatorice

Participarea începând din anul 2020 în consiliul director al organizației cercetătorilor români, AdASTRA in activități de management și organizatorice.

COMPETENȚE DE COMUNICARE ȘI INTERPERSONALE

Competențe de comunicare și interpersonale

Interviuri televizate pe teme științifice pentru televiziunile în limba spaniolă din Statele Unite și din Mexic (Televisa, Univision, Telemundo, Canal 22, NBC, Telefutura, etc.).

Interviuri, podcasts în limba română și spaniolă.

Interviuri TV (Earthquakes in Southern California):

- 16 Jun 2005 (Telemundo - NBC)
- 17 Jun 2005 (Televisa, Univisión, Canal 22),
- 21 Jun 2005 (Telemundo, Televisa, Univisión, Canal 22)

TV Documentary: Natural Hazards in Southern California and the San Andreas Fault:

- 10 Oct 2005 (Telemundo- NBC)

TV Interview (Earthquake of M7.6 - 9 Oct 2005, Balakot, Pakistan):

- 11 Oct 2005 (NBC)

Other TV interviews:

- 7 Dec 2005 (Univisión)
- 9 Dic 2005 (Telefutura)

Articole pentru publicul larg:

- Serendipia, Año II, no14 (Jan-Feb 2010) - HORUS-GEOMATRIX, mancuerna virtual de la geodinamica.
- Gaceta UNAM, 30 Jun 2011, No 4349: Geociencias desarrolla un cerebro electronico superiores.
- etc.



DEZVOLTARE TEHNOLOGICĂ

Dezvoltare tehnologică

Infrastructura de Supercomputing și Vizualizare Științifică

- ◆ 2014-2016 – crearea Laboratorului Național de Vizualizare Științifică Avansată - LAVIS Campus UNAM, Juriquilla, Querétaro, México (proiectare clădire, proiectare configurație sali de calcul, vizualizare, dotare cu echipamente, arhitectură de calcul și sisteme de comunicații, selecție și pregătire personal, etc)
- ◆ Sep. 2013-Aug 2014 – construirea HPVC ISIS parallel visualization system - Centro de Geociencias, Campus UNAM, Juriquilla, Querétaro, México
- ◆ Din Mar. 2011 – Cyberdyn Infrastructure (HPCC, HPVC and Geowall) –Institute of Geodynamics, Romanian Academy, Romania
- ◆ Din Aug. 2008 – GeoMATRIX - GEOWALL facility for advanced 3D stereo visualization - Centro de Geociencias, Campus UNAM, Juriquilla, Querétaro, México.
- ◆ Din Mar. 2007 – HPCC HORUS – Supercomputing facility for subduction dynamics simulations at Centro de Geociencias, Campus UNAM, Juriquilla, Querétaro, México
- ◆ Din Mar. 2007 – Computational Geodynamics Laboratory setup - proiectare configurație sală de calcul, vizualizare, dotare cu echipamente, arhitectură de calcul și sisteme de comunicații - Centro de Geociencias, Campus UNAM, Juriquilla, Querétaro, México

ALTE COMPETENȚE

Alte competențe

-Membru regulat al Academiei Mexicane de Științe

-Revizor pentru: Nature Geosciences (din 2012); Pure and Applied Geophysics (din 2010); Revista Mexicana de Ciencias Geológicas (din 2010); Tectonophysics (din 2009); Journal of Geophysical Research (din 2008); Earth Sciences and Mathematics (din 2008); National Science Foundation (NSF) (din 2008); Physics of the Earth and Planetary Interiors (din 2005); AGU Monograph (PEPI)- (2006); Geochemistry, Geophysics, Geosystems (din 2005), Australian Research Council (din 2014), UEFISCDI (din 2016).

27/04/2023

Vlad Constantin
Manea