Publications

Constanza Rodriguez Piceda

1 Monographs

[1] **Rodriguez Piceda**, **C.** "Thermomechanical state of the southern Central Andes : implications for active deformation patterns in the transition from flat to steep subduction". eng. PhD thesis. Universität Potsdam, 2022. DOI: 10.25932/publishup-54927.

[2] **Rodriguez Piceda**, **C.** "Geología y paleomagnetismo del Grupo Santa Victoria en la Sierra de Mojotoro, provincia de Salta [Geology and Paleomagnetism of the Santa Victoria Group in the Mojotoro Range, Salta Province]". Español. Tesis de Grado. Universidad de Buenos Aires. Facultad de Ciencias Exactas y Naturales, 2017.

2 Further publications

a. Peer-reviewed Publications

[1] Pons*, M., **Rodriguez Piceda**, **C.**, Sobolev, S. V., Scheck-Wenderoth, M., and Strecker, M. R. "Localization of Deformation in a Non-Collisional Subduction Orogen: The Roles of Dip Geometry and Plate Strength on the Evolution of the Broken Andean Foreland, Sierras Pampeanas, Argentina". en. In: *Tectonics* 42.8 (2023), e2023TC007765. ISSN: 1944-9194. DOI: 10.1029/2023TC007765.

[2] **Rodriguez Piceda**, **C.**, Gao, Y.-J., Cacace, M., Scheck-Wenderoth, M., Bott, J., Strecker, M., and Tilmann, F. "The influence of mantle hydration and flexure on slab seismicity in the southern Central Andes". en. In: *Communications Earth & Environment* 4.1 (2023). Number: 1 Publisher: Nature Publishing Group, pp. 1–10. ISSN: 2662-4435. DOI: 10.1038/s43247-023-00729-1.

[3] **Rodriguez Piceda***, **C.**, Scheck-Wenderoth, M., Bott, J., Gomez Dacal, M. L., Cacace, M., Pons, M., Prezzi, C. B., and Strecker, M. R. "Controls of the Lithospheric Thermal Field of an Ocean-Continent Subduction Zone: The Southern Central Andes". In: *Lithosphere* 2022.1 (2022), p. 2237272. ISSN: 1941-8264. DOI: 10.2113/2022/2237272.

[4] **Rodriguez Piceda***, **C.**, Scheck-Wenderoth, M., Cacace, M., Bott, J., and Strecker, M. R. "Long-Term Lithospheric Strength and Upper-Plate Seismicity in the Southern Central Andes, 29°–39°S". en. In: *Geochemistry, Geophysics, Geosystems* 23.3 (2022), p. 22. ISSN: 1525-2027. DOI: 10.1029/2021GC010171.

[5] Barrionuevo*, M., Liu, S., Mescua, J., Yagupsky, D., Quinteros, J., Giambiagi, L., Sobolev, S., Strecker, M., and **Rodriguez Piceda**, **C.** "The influence of variations in crustal composition and lithospheric strength on the evolution of deformation processes in the southern Central Andes: Insights from geodynamic models". In: *International Journal of Earth Sciences* (2021). DOI: https://doi.org/10.1007/s00531-021-01982-5.

[6] Franceschinis*, P. R., Fazzito, S. Y., Rapalini, A. E., Escayola, M. P., Geuna, S. E., and **Rodríguez Piceda**, **C.** "Permian remagnetization of the Early Cambrian Guachos Formation, Eastern Cordillera, Argentina". In: *Journal of South American Earth Sciences* 106 (2021), p. 102887. ISSN: 0895-9811. DOI: 10.1016/j.jsames.2020.102887.

[7] Franceschinis, P. R., Rapalini, A. E., Escayola, M. P., and **Rodríguez Piceda, C.** "Paleogeographic and tectonic evolution of the Pampia Terrane in the Cambrian: New paleomagnetic constraints". In: *Tectonophysics* 779 (2020), p. 228386. ISSN: 0040-1951. DOI: 10.1016/j.tecto.2020.228386.

[8] Franceschinis*, P. R., Escayola, M. P., Rapalini, A. E., and **Rodríguez Piceda, C.** "Age constraints on the Cambrian Mesón Group (NW Argentina) based on detrital zircons U–Pb geochronology and magnetic polarity bias". In: *Journal of South American Earth Sciences* 104 (2020), p. 102835. ISSN: 0895-9811. DOI: 10.1016/j.jsames.2020.102835.

[9] **Rodriguez Piceda*, C.**, Scheck Wenderoth, M., Gomez Dacal, M. L., Bott, J., Prezzi, C. B., and Strecker, M. R. "Lithospheric density structure of the southern Central Andes constrained by 3D data-integrative gravity modelling". en. In: *International Journal of Earth Sciences* (2020). ISSN: 1437-3254, 1437-3262. DOI: 10.1007/s00531-020-01962-1.

[10] **Rodriguez Piceda*, C.**, Franceschinis, P. R., Escayola, M. P., and Rapalini, A. E. "Paleomagnetismo del Grupo Santa Victoria en la sierra de Mojotoro, Salta: aportes a la reconstrucción paleogeográfica de Pampia en el Paleozoico temprano". In: *Revista de la Asociación Geológica Argentina* 75.4 (2018), pp. 518–532.

b. Submitted peer-reviewed manuscripts

[1] **Rodriguez Piceda, C. R.**, Mildon, Z. K., Ende, M. van den, Ampuero, J. P., and Andrews, B. J. "Normal fault interactions in seismic cycles and the impact of fault network geometry". en. In: *submitted to Journal of Geophysical Research: Solid Earth* (2024).

c. Publications without peer-review

[1] **Rodriguez Piceda, C.**, Mildon, Z., Ende, M. van den, Ampuero, J. P., and Andrews, B. *3D seismic cycle models of two normal faults*. Zenodo [dataset]. Zenodo, 2025. DOI: 10.5281/zenodo.14724747. URL: https://doi.org/10.5281/zenodo.14724747.

[2] Andrews, B., Mildon, Z., Lukas Diercks, M., Mitchell, S., Roberts, G., **Rodriguez Piceda, C.**, and Robertson, J. "Using fracture-scarp lineations as kinematic indicators on active normal fault scarps". In: EGU General Assembly, Vienna, Austria [conference abstract]. 2024. DOI: 10.5194/egusphere-egu24-10122.

[3] Mildon, Z., Andrews, B., **Rodriguez Piceda, C.**, and Diercks, M. "Insights into fault behaviour and seismic hazard from studying active and inactive faults over a range of timescales". In: EGU General Assembly, Vienna (Austria). 2024. DOI: 10.5194/egusphere-egu24-17839.

[4] **Rodriguez Piceda, C.** "The signature of lithospheric strength on seismicity in the southern Central Andes". en. In: IRN - Andes Frensz online seminar series [i]. 2024.

[5] **Rodriguez Piceda, C.**, Mildon, Z. K., Yin, Y., Andrews, B. J., Sgambato, C., Ende, M. van den, and Ampuero, J. P. "How normal fault interactions impact the generation of complex seismic sequences in the southern Apennines". en. In: Cargèse international workshop on earthquakes, Cargese (France) [conference abstract]. 2024.

[6] **Rodriguez Piceda, C.**, Mildon, Z. K., Yin, Y., Andrews, B. J., Sgambato, C., Ende, M. van den, and Ampuero, J. P. "Simulating normal fault interactions during complex seismic sequences in the southern Apennines". en. In: EGU General Assembly, Vienna, Austria [conference abstract]. 2024. DOI: 10.5194/egusphere-egu24-11002.

[7] **Rodriguez Piceda, C.**, Scheck-Wenderoth, M., Cacace, M., Bott, J., Gao, Y.-J., Tilmann, F., and Strecker, M. "Contributions of lithospheric strength, mantle hydration and slab flexure to seismic localization in the southern Central Andes". en. In: IPOC workshop [conference abstract]. Potsdam (Germany), 2024.

[8] **Rodriguez Piceda**, **C.**, Scheck-Wenderoth, M., Cacace, M., Bott, J., Gao, Y.-J., Tilmann, F., and Strecker, M. "The fingerprints of lithospheric strength in the seismicity patterns of the southern Central Andes". en. In: VI Coloquio sobre Señales Geofisicas de Terremotos y Volcanes [conference abstract, keynote speaker]. Concepcion (Chile), 2024.

[9] Pons, M., **Rodriguez Piceda**, **C.**, Sobolev, S. V., Scheck-Wenderoth, M., and Strecker, M. R. "Understanding the role of structural inheritance and flat slab geometry in Central Andes". In: EGU General Assembly, Vienna, Austria [conference abstract]. 2023, EGU–8492. DOI: 10.5194/egusphere-egu23-8492.

[10] Pons, M., **Rodriguez Piceda**, **C.**, Sobolev, S., Scheck-Wenderoth, M., and Strecker, M. *Flat-slab conveyor effect induces precursory crustal contraction in the Central Andes*. en. [preprint]. 2023. DOI: 10.21203/rs.3.rs-2488794/v1.

[11] Pons, M., **Rodriguez Piceda**, **C.**, Sobolev, S., Scheck-Wenderoth, M., and Strecker, M. R. *3D geodynamic data-driven model of the Southern Central Andes*. GFZ data services [dataset]. 2023. DOI: 10.5880/GFZ.2.5.2023.001.

[12] **Rodriguez Piceda**, **C.** "From lithospheric- to crustal scale: the effect of geological variability on seismicity". en. In: CRES Seminar Series, Plymouth (UK) [conference abstract]. 2023.

[13] **Rodriguez Piceda**, **C.**, Mildon, Z., Ende, M. van den, and Ampuero, J. P. "Fault network geometry induces complex seismic sequences in normal faults". en. In: ICTP Workshop on Mechanics of the Earthquake Cycle, Trieste, Italy [conference abstract]. 2023.

[14] **Rodriguez Piceda**, **C.**, Mildon, Z., Ende, M. van den, and Ampuero, J. P. "The effects of 3D normal fault interactions in seismic cycles". en. In: CRES Conference, Plymouth (UK) [conference abstract]. 2023.

[15] **Rodriguez Piceda**, **C.**, Scheck-Wenderoth, M., Cacace, M., Bott, J., Gao, Y.-J., Tilmann, F., and Strecker, M. "Contributions of lithospheric structure, mantle hydration and slab flexure in seismic localization in the southern Central Andes". en. In: PATADays 2022, Aix-en-Provence, France [conference abstract]. 2022.

[16] **Rodriguez Piceda**, **C.**, Scheck-Wenderoth, M., Cacace, M., Bott, J., Gao, Y.-J., Tilmann, F., and Strecker, M. "How does lithospheric strength, mantle hydration and slab flexure relate to seismicity in the southern Central Andes?" en. In: EGU General Assembly, Vienna, Austria [conference abstract]. 2022. DOI: 10.5194/egusphere-egu22-1613.

[17] Anikiev, D., Götze, H.-J., Bott, J., Gómez-García, A. M., Dacal, M. L. G., Meeßen, C., Spooner, C., **Rodriguez Piceda**, **C.**, Plonka, C., Schmidt, S., and Scheck-Wenderoth, M. "Interdisciplinary data-constrained 3-D potential field modelling with IGMAS+". en. In: EGU General Assembly, Vienna, Austria [conference abstract]. 2021. DOI: 10.5194/egusphere-egu21-2964.

[18] Götze, H.-J., Anikiev, D., Bott, J., Gómez-García, A. M., Dacal, M. L. G., Meeßen, C., Spooner, C., **Rodriguez Piceda**, **C.**, Plonka, C., Schmidt, S., and Scheck-Wenderoth, M. "Interdisciplinary data-constrained 3-D potential field modelling with IGMAS+". en. In: DGG, Germany. 2021.

[19] **Rodriguez Piceda**, **C.**, Scheck Wenderoth, M., Cacace, M., Bott, J., and Strecker, M. *3D rheological model of the Southern Central Andes*. GFZ data services [dataset]. 2021. DOI: https://doi.org/10.5880/GFZ.4.5.2021.002.

[20] **Rodriguez Piceda**, **C.**, Scheck Wenderoth, M., Judith, B., Gomez Dacal, M. L. G., Cacace, M., Pons, M., Prezzi, C., and Strecker, M. "Controls of the lithospheric thermal field of an ocean-continent subduction zone: the southern Central Andes". en. In: *EarthArXiv* (2021). [preprint]. DOI: https://doi.org/10.31223/X5B05D.

[21] **Rodriguez Piceda**, **C.**, Scheck-Wenderoth, M., Bott, J., Dacal, M. L. G., Pons, M., Prezzi, C., and Strecker, M. "Unravelling the thermal state of the southern Central Andes and its controlling factors". en. In: EGU General Assembly, Vienna, Austria [conference abstract]. 2021. DOI: 10.5194/egusphere-egu21-5214.

[22] **Rodriguez Piceda**, **C.**, Scheck-Wenderoth, M., Bott, J., Gomez Dacal, M. L., Pons, M., Prezzi, C., and Strecker, M. *3D thermal model of the southern Central Andes*. GFZ data services [dataset]. GFZ Data Services, 2021. DOI: https://doi.org/10.5880/GFZ.4.5.2021.001.

[23] **Rodriguez Piceda**, **C.**, Scheck-Wenderoth, M., Gomez Dacal, M. L., Bott, J., Prezzi, C., and Strecker, M. *Lithospheric-scale 3D model of the Southern Central Andes*. dataset. GFZ data services [dataset]. 2020. DOI: 10.5880/GFZ.4.5.2020.001.

[24] **Rodriguez Piceda**, **C.**, Scheck-Wenderoth, M., Gomez Dacal, M. L., Bott, J., Prezzi, C., and Strecker, M. "Insights on the lithospheric density structure of the Southern Central Andes and their foreland". In: Latin-American Colloquium, Hamburg Germany [conference abstract]. 2019.

[25] **Rodriguez Piceda**, **C.**, Scheck-Wenderoth, M., Gomez Dacal, M. L., Bott, J., Prezzi, C., and Strecker, M. "Lithospheric-scale 3D configuration of the Southern Central Andes". In: 5th International Young Earth Scientists (YES) Congress, Berlin, Germany, [conference abstract]. 2019.

Peer-reviewed publications [1]-[4] and [9] are derived from the PhD dissertation.