

Accepted Manuscript

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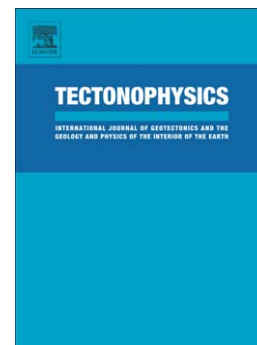
PII: S0040-1951(17)30057-4
DOI: doi:[10.1016/j.tecto.2017.02.011](https://doi.org/10.1016/j.tecto.2017.02.011)
Reference: TECTO 127403

To appear in: *Tectonophysics*

Received date: 1 November 2016
Revised date: 8 February 2017
Accepted date: 13 February 2017

Please cite this article as: Dacal, María Laura Gómez, Tocho, Claudia, Aragón, Eugenio, Sippel, Judith, Scheck-Wenderoth, Magdalena, Ponce, Alexis, Lithospheric 3D gravity modelling using upper-mantle density constraints: Towards a characterization of the crustal configuration in the North Patagonian Massif area, Argentina, *Tectonophysics* (2017), doi:[10.1016/j.tecto.2017.02.011](https://doi.org/10.1016/j.tecto.2017.02.011)

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Lithospheric 3D gravity modelling using upper-mantle density constraints: towards a characterization of the crustal configuration in the North Patagonian Massif area, Argentina.

María Laura Gómez Dacal^{a,b,*}, Claudia Tocho^{a,c}, Eugenio Aragón^{b,d}, Judith Sippel^e, Magdalena Scheck-Wenderoth^{e,f}, Alexis Ponce^g

^a*Departamento de Gravimetría, Facultad de Ciencias Astronómicas y Geofísicas, Universidad Nacional de La Plata, Paseo del Bosque s/n, B1900FWA, La Plata, Buenos Aires, Argentina. Tel.: +54-0221-4236593. gomezdacal@fcaglp.unlp.edu.ar*

^b*Consejo Nacional de Investigaciones Científicas y Técnicas, Av. Rivadavia n° 1917, C1033AAJ, Ciudad Autónoma de Buenos Aires, Argentina*

^c*Comisión de Investigaciones Científicas de la Provincia de Buenos Aires. 526, 10 y 11. B1900FWA La Plata, Buenos Aires, Argentina.*

^d*Facultad de Ciencias Naturales y Museo, Universidad Nacional de La Plata, Centro de Investigaciones Geológicas, 1 n° 644, B1900FWA, La Plata, Buenos Aires, Argentina.*

^e*Section 6.1 Basin Modelling, Helmholtz Centre Potsdam, GFZ German Research Centre for Geosciences, Potsdam, Germany.*

^f*Department of Geology, Geochemistry of Petroleum and Coal, RWTH Aachen University, Aachen, Germany.*

^g*Instituto de Ciencias de la Tierra y Ambientales de La Pampa (CONICET- UNLPam), Av. Uruguay 151, 6300 Santa Rosa, La Pampa, Argentina.*

Abstract

The North Patagonian Massif is an Argentinean plateau that has an average height of 1200 *m* and stands from 500 to 700 *m* above the neighboring areas. During Paleogene, it suffered a sudden uplift of more than 1200 *m* without noticeable internal deformation; thus, it could be related to isostatic disequilibrium. To shed light on the geodynamic development of the area it is necessary to characterize the present-day configuration of the crust. In this study, a lithospheric-scale 3D density model was developed by integrating all the available data of the area with the objective of assessing the depth of the crust-mantle discontinuity (Moho). During the construction of the initial density model, we tested different mantle density scenarios obtained using P- and S-wave veloc-

*Corresponding author.

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