Miller Zambrano

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Sex: [redacted] | Date of birth: [redacted] | Nationality: [redacted]

PERSONAL STATEMENT:

A Geoscientist holding a PhD in Earth Sciences from the University of Camerino (Italy) and a Degree in Geophysical Engineering form the Central University of Venezuela with a combined experience in petroleum exploration and research. Main work skills include structural geology, seismic interpretation, fracture modelling and fluid flow simulation at pore-scale.

EDUCATION:

2012 – 2016 | **PhD Earth Sciences** | University of Camerino. Italy

- The research was focused in geological modelling and fluid flow in deformed porous and tight carbonates from the pore-scale to the seismic-scale.
- Fracture modelling, field structural geology, fluid flow simulation, computer fluid dynamics experiments have been used for characterizing faults zones and deformation bands.
- Responsibilities include co-supervising master students and giving some lectures.

2002 –2008 | **Geophysicist Engineer** | Central University of Venezuela

- The followed courses include general geology and applied geophysics (i.e. seismology, gravimetric, electrical methods).
- The thesis dissertation, approved with honours, was focused in seismic interpretation in an area of the Maracaibo Basin. New oil opportunities were proposed to evaluation.

WORK EXPERIENCE:

Dec. 2015 – March 2016 | **Research Fellow** | University of Camerino. Italy

- The research was focused to applied computer fluid dynamics (Lattice-Boltzmann) simulation in deformed porous carbonates using high resolution X-ray tomographic images.

July 2015 – Sept. 2015 | **Erasmus Intern** | Heat and Mass Transfer Technological Center-Polytechnic University of Catalonia

- Activities were concentrated to get basic computer fluid dynamics skills applied to porous media.

2008 – 2012 | **Exploration Geophysicist - Seismic Interpreter** | PDVSA (Venezuelan Oil Company)

- As part of a multidisciplinary team, my main responsibility was to evaluate and to discover new plays and prospects by implementing the interpretation of 2D and 3D seismic (Offshore/Inshore) in different structural settings.

2006 – 2007 | **Professor's Assistant** | Universidad Central de Venezuela. Caracas, Venezuela.

- Giving lectures and supervising laboratory and field activities related to applied seismology.

2002 – 2008 | **Volunteer Firefighter** | Universidad Central de Venezuela. Caracas, Venezuela.

- A volunteer public service that included paramedic support, rescue and firefighting. I also played some roles of leadership such as firefighter watch manager.

PERSONAL SKILLS:

- Good verbal and writing communication skills, experienced in working under pressure environments and multidisciplinary teamwork.
- Languages: **Spanish** (mother tongue), **English**, **Italian**.
- Seismic Interpretation and Fracture Modelling software (Landmark, Petrel, Move)
- Driving licence B

PUBLICATIONS:

- *3D pore-network quantitative analysis of the inner structure of deformation bands in carbonate grainstones*. M. Zambrano, E. Tondi, L. Mancini, F. Arzilli, G. Lanzafame, M. Materazzi, S. Torrieri. Submitted to Marine and Petroleum Geology (2016).
- *Fracture stratigraphy and fluid flow properties of shallow-water, tight carbonates: The case study of the Murge Plateau (southern Italy).* Panza E., Agosta F., Rustichelli A., Zambrano M., Tondi E., Prosser G., Giorgioni M., Janiseck J.M. Marine and Petroleum Geology 73 (2016),350-370. DOI: 10.1016/j.marpetgeo.2016.03.022
- *Fracture properties analysis and discrete fracture network modelling of faulted tight limestones, Murge Plateau, Italy*. Zambrano M., Tondi E., Korneva I., Panza E., Agosta F., Janiseck J.M., Giorgioni M. Italian Journal of Geosciences. Volume 134 (2015) f.0. DOI: 10.3301/IJG.2014.42
- *Structural architecture and Discrete Fracture Network modelling of layered fractured carbonates (Altamura Fm., Italy)*. Panza E., Agosta F., Zambrano M., Tondi E., Prosser G., Giorgioni M., Janiseck J.M. Italian Journal of Geosciences. Volume 134 (2015) f.0. DOI:10.3301/IJG.2014.28
- *Fluid-flow numerical experiments of faulted porous carbonates, Northwest Sicily (Italy).* Antonellini M., Cilona A., Tondi E., Zambrano M., Agosta F. Marine and Petroleum Geology 55 (2014), 186-201. DOI:10.1016/j.marpetgeo.2013.12.003

CONFERENCES:

- *3d pore-network analysis and permeability estimation of deformation bands hosted in carbonate grainstones.* Zambrano M., Tondi E., Mancini L., Trias F.X., Arzilli F., Lanzafame G., Aibibula N., 2016. Geophysical Research Abstracts Vol. 18, EGU2016-13382, 2016 EGU General Assembly 2016
- *3D image analysis of deformation bands in porous carbonate grainstones.* Zambrano M., Tondi E., Mancini L., Dinolfo G., Aibibula N., Arzilli F., Napoli G. Joint Assembly AGU-GAG-MAC-CGU. Montreal Canada, May 2015. [Poster]
- *Discrete fracture network modelling of faulted and fractured Apulian platform carbonates (Altamura Formation, southern Italy).* Zambrano M., Panza E., Korneva I., Agosta F., Tondi E., Longhitano S. Reducing Subsurface Uncertainty & Risk through Field-Based Studies. London. March 2014. [Poster]
- *Deformation mechanisms and hydraulic properties of normal and strike-slip fault zones in porous carbonates outcropping in central and Southern Italy.* Tondi E., Balsamo F., Napoli G., Storti F., Agosta F., Renda P., Zambrano M., Cilona A., Antonellini M.. GeoItalia. Session: "Fractured carbonate reservoir". Pisa. September 2013. [Poster]

AWARDS:

- Winner of "Petroleum Geology Student Contest" (event sponsored by Shell Italia E&P), 27th November 2015. Matera, Italy. I presented some results of my PhD research: *"Fault zones characterization and fluid flow numerical experiments in carbonates rocks"*

REFEREES:

- Dr. Emanuele Tondi. Professor at University of Camerino ✉ emanuele.tondi@unicam.it
- Dr. Rafael Ramirez. Geologist and Manager at PDVSA ✉ ramirezrwl@pdvsa.com
- Dr. Luca Micarelli. Structural Geologist at Beicip-Franlab ✉ luca.micarelli@beicip.com