

CURRICULUM VITAE

Name: **Derder**

First name: **Mohamed El-Messaoud** Date

of birth: 17 January 1958

Address: C.R.A.A.G. B.P. 63 Bouzreah 16340 Alger, Algeria.

Email : m.e.m.derder@gmail.com; m.derder@craag.dz

EDUCATION

- 1989: PhD University - University of Orsay Paris XI, France
- 1986: Doctorat 3ème cycle in Geophysics and Geochemistry - University of Orsay Paris XI, France
- 1984: Diploma of Advanced Studies (DEA) Geophysics - University of Orsay Paris XI, France.

EMPLOYMENT HISTORY

- June 2000 – Present: Research Director at the Centre for Research in Astronomy, Astrophysics and Geophysics (CRAAG), Algiers.
- July 1993 - June 2000: Senior Scientist at CRAAG), Algiers
- July 1989 to July 1993: Research Scientist at CRAAG), Algiers
- January 1987 to July 1989: Research Associate at the Centre for Research in Astronomy, Astrophysics and Geophysics (CRAAG), Algiers

RESEARCH RELATED ACTIVITIES:

Principal Investigator in several collaborative works with national and international teams:

- **1988- 1992: project CNRS (France) -DPRS (MERS-Algérie):**
"Paleomagnetic study of the Algerian Sahara: Pangea Configuration between Cambrian to Jurassic".
Foreign partners: Lab. Geomagnetism St Maur (CNRS) and University Paris 6, France.
- **1995-1999: project "CMEP": N°: 95 MDU 332:**
"Paleogeography of NW Hoggar basins during the Middle Paleozoic: contribution of sedimentology, tectonics and paleomagnetism."
Foreign partners: Laboratory of Geophysics and Tectonics of the University of Montpellier 2 and the Institute of Earth Physics of Paris (IPGP), France.
- **1998-2000: National Research Project (PNR 1):**
"Paleogeography of the Tin Serririne basin during the Paleozoic: tectonic-sedimentary and paleomagnetic investigations"
National Partners: Centre for Research and Development of Materials (CREM-HCR).
- **2000-2004: project "CMEP": N°: 01MDU521:**
" Geodynamical history of Tin Seririne / Tin Mersoï basin (SE Hoggar, Algeria): Contribution of tectonics, sedimentology and paleomagnetism. "
Foreign partners: Institute of Earth Physics of Paris (IPGP), France.
- **2005-2007: project DEF (MERS) - CNRS (France):**
"Characterization of the accidents of the Central Hoggar (Algeria): Structural analysis and Anisotropy of Magnetic Susceptibility (AMS) of Pan-African granites"
Foreign partners: Institute of Earth Physics of Paris (IPGP), France.
- **2008-2011: project CMEP: N°: 08MDU752:**
"Structure and geodynamic evolution of seismogenic Chéllif basin: Contribution to the reduction of seismic risk in the region of El Asnam"
Foreign partners: Institute of Earth Physics of Paris (IPGP), France.
- **2011 - Present : CRAAG project approved by the Scientific Council**
"Neotectonics of the Northern Algeria: Contribution of structural and paleomagnetic methods"
National Partners: Earth Science Institute of the University of Science Houari Boumediene, USTHB

co-Principal Investigator of an international project:

- **2012-2015: project CMEP: N°:12 MDU 878:**
"Meso-Cenozoic geodynamic evolution of the regions of Atakor and Serouanout: Contribution to the knowledge of the origin and history of the vertical movements of the lithosphere under the central Hoggar (Algeria)". Foreign partners: Earth Science Department, Orsay Paris 11 University.

Mean publications of the 10 past years

- **M.E.M. DERDER**, H. DJELLIT, B. HENRY, S. MAOUCHE, M. AMENNA, R. BESTANDJI, A. ABTOUIT AND C. DORBATH. Strong neotectonic block-rotations, related to the Africa-Eurasia convergence, in northern Algeria: paleomagnetic evidence from the Mitidja basin. Submitted to "Tectonics".
- M. AMENNA, M.E.M. DERDER, B. HENRY, S. MAOUCHE, B. BAYOU, R. BESTANDJI, ... AND M. BEDDIAF; Chemical remagnetization acquisition processes: Case study of the Saharan basins (Algeria). *Arab J. Geosci.* (2017) 10:379, DOI 10.1007/s12517-017-3165-z
- B. HENRY, **M.E.M. DERDER**, M. AMENNA, S. MAOUCHE B. BAYOU: Better constrained selection of the Paleozoic West Gondwana (South America) paleomagnetic poles for the APWP's determination. *Stud. Geophys. Geod.*, 61 (2017), DOI: 10.1007/s11200-016-1036-9.
- M.E.M. DERDER**, S. MAOUCHE, J.P. LIEGEOIS, B. HENRY,... M. BEDDIAF: Discovery of a Devonian mafic magmatism on the western border of the Murzuq basin (Saharan metacraton): Paleomagnetic dating and geodynamical implications. *Journal of African Earth Sciences* 115 (2016) 159-176.
- M. AMENNA, **M.E.M. DERDER**, B. HENRY, B. BAYOU, S. MAOUCHE,... AND M. BEDDIAF: Improved Moscovian part of the Gondwana APWP for paleocontinental reconstructions, obtained from a first paleomagnetic pole, age-constrained by a fold test, from In Ezzane areain the Murzuq basin (Algeria, stable Africa), *Journal of African Earth Sciences* 99, 342–352, (2014).
- B. HENRY, **M.E.M. DERDER**, M. AMENNA, S. MAOUCHE B. BAYOU,... AND R. BESTANDJI :Paleomagnetic dating of continental geological formations: Strong diachronism evidenced in the Saharan platform and geodynamical implications, *Journal of African Earth Sciences* 99 353–362, (2014).
- ROUGIER S, MISSENARD Y., GAUTHERON C., BARBARAND J., ZEYEN H., LIEGOIS J.P., BONIN B., OUABADI A., **DERDER M.E.M.**, FRIZON DE LAMOTTE D., Eocene exhumation of the Tuareg shield, *Geology*, doi:10.1130/G33731.1, (2013).
- M.E.M. DERDER**, B. HENRY, S. MAOUCHE, B. BAYOU ,M. AMENNA, J. BESSE,...AND M. AYACHE : Transpressive tectonics along a major E-W crustal structure on the Algerian continental margin: blocks rotations revealed by a paleomagnetic analysis. *Tectonophysics*, 593, 183–192, (2013).
- DERDER M.E.M.**, HENRY B., AMENNA M., BAYOU B,...AND AYACHE M.: Tectonic Evolution of the Active "Chelif" Basin (Northern Algeria) from Paleomagnetic and Magnetic Fabric Investigations", in "New Frontiers in Tectonic Research at the Midst of Plate Convergence "Intech Publisher" book, pp: 3-26, Intech Publisher, ISBN 978-953- 307-594-5, 2011.
- M.E.M. DERDER**, B. HENRY, M. AMENNA, B. BAYOU,... and A. HEMMI. New structural implications for central Sahara (Algeria) from revisited Upper Carboniferous "Hassi Bachir" Formation : Paleomagnetic constraints. *Tectonophysics* 463, 69–76, (2009).
- B. HENRY, J.P. LIÉGEOIS, O. NOUAR, **M.E.M. DERDER**,... M. AYACHE: Repeated granitoid intrusions during the Neoproterozoic along the western boundary of the Saharan metacraton, Eastern Hoggar, Tuareg shield, Algeria: An AMS and U–Pb zircon age study. *Tectonophysics* 474,) 417–434, (2009).
- B. HENRY, B. BAYOU, **M.E.M. DERDER**, , H. DJELLIT, ... and A. HEMMI. - Late Panafrican evolution of the main Hoggar faults: implications of magnetic fabric study in the In Telloukh pluton (Tin Serririne basin, Algeria) *Journal of African Earth Science* 49, 211–221, (2007).
- **M.E.M. DERDER**, B. HENRY, B. BAYOU, ... and M.A. GUEMMACHE : New African Lower Carboniferous paleomagnetic pole from intrusive rocks of the Tin Serririne basin (Southern border of the Hoggar, Algeria), *Tectonophysics*, 418 189-203. (2006).
- B. SMITH, **M.E.M. DERDER**, B. HENRY, ... and H. GANDRICHE. Unravelling the two tectonics phases undergone by a doleritic sill in the Reggane Basin (Algerian Sahara) : *Geophysical Journal International*, 167 380- 396. (2006).
- B. HENRY, **M.E.M. DERDER**, B. BAYOU , A. OUABADI, ... and A. HEMMI Magnetic fabric of Late Pan-African plutons of the Tamanrasset area (Hoggar shield, Algeria) and structural implications, *Africa Geoscience Revue*, Vol 13, N°1,41-52, (2006).

Mean TALKS of the 10 past years

- M.E.M. DERDER, P. ROBION, S. MAOUCHE, M. AMENNA, B. HENRY, Y. MISSENARD, R. BESTANDJI, AND A. OUABADI. Neotectonic model of northern Algeria: Blocks tectonic rotations revealed by new paleomagnetic data. " **British Seismology Meeting**" **BSM2017, 5th – 7th April 2017, Reading(U.K)**
- M.E.M. DERDER, P. ROBION, S. MAOUCHE, B. BAYOU, M. AMENNA, B. HENRY, Y. MISSENARD, A. OUABADI, R. BESTANDJI AND M. AYACHE: Bloc tectonic rotations recorded in the Neogene and Quaternary magmatic rocks from Northwestern Algeria: preliminary paleomagnetic results. **European Geosciences Union (EGU), General Assembly, Vienna , Austria, 17-22 April 2016.**
- S. MAOUCHE, M.E.M. DERDER, B. HENRY, M. AMENNA, B. BAYOU AND J. BESSE: Neotectonics of the Algerian margin: Blocks rotations evidenced by paleomagnetic analysis.**35th International Geological Congress, Cape Town, SOUTH AFRICA, 27 August - 4 September 2016.**
- M. E.M. DERDER, S. MAOUCHE, B. HENRY, B. BAYOU, M. AMENNA, M. AYACHE "Neotectonic Deformation Model for the Northern Algeria: Paleomagnetic and Structural Constraints. **GEORISKS IN THE MEDITERRANEAN AND THEIR MITIGATION**" meeting, Valetta, Malta July 20-21, 2015.
- M. AMENNA, M.E.M. DERDER, B. HENRY, S. MAOUCHE AND B. BAYOU.
Structural implications for the Western Gondwana of a better constrained selection of the paleomagnetic poles for APWPs determination. 26th General Assembly of the International Union of Geodesy and Geophysics (IUGG), Prague, June 22 – July 02 2015.
- B. HENRY, M. E.M. DERDER, , M. AMENNA, S. MAOUCHE, B. BAYOU, A. OUABADI, H. BOUABDALLAH, M. BEDIAF, M. AYACHE AND R. BASTANDJI. Paleomagnetic dating of continental geological formations: Strong diachronism evidenced in the Saharan platform and geodynamical implications. **14th Castle meeting 2014, new trends on Paleo, Rock ad environment Magnetism, Evora, Portuga, 31th august-6th September 2014.**
- M.E.M. DERDER, B. HENRY, S. MAOUCHE; B.BAYOU, M. AMENNA, J. BESSE, M. BESSEDIK, D.BELHAI, M. AYACHE: Blocks rotations revealed by paleomagnetic investigations: Transpressive tectonics along a major E–W crustal structure on the northern Algeria. **Geophysical Research Abstracts, Vol. 16, EGU2014-1200, 2014, EGU General Assembly 2014**
- M.E.M. DERDER, B. HENRY, S. MAOUCHE, B. BAYOU, M. AMENNA, J. BESSE, M. BESSEDIK, D. BELHAI AND M. AYACHE: Transpressive tectonics along a major E-W crustal structure on the Algerian continental margin: blocks rotations revealed by a paleomagnetic analysis. **International symposium: "The large Mediterranean earthquakes: from past to present" Algiers , 21-23 may 2013.**
- M.E.M DERDER , HENRY B., MAOUCHE S., AMENNA M., BAYOU B., H. DJELLIT, YMEL H. , S. GHARBI, ABTOUT A. AND AYACHE M.. Neotectonic deformation model of the Northern Algeria from Paleomagnetic data. **European Geosciences Union (EGU), General Assembly 2012, Vienna, Austria, 22 – 27 April 2012.**
- M.E.M. DERDER, B. HENRY, M. AMENNA, B. BAYOU, S. MAOUCHE, J. BESSE, M. AYACHE: Block rotation tectonics recorded in the miocene magmatic rocks of "Beni Haoua" area (northern Algeria): preliminary paleomagnetic results. **European Geosciences Union (EGU), General Assembly 2011, Vienna, Austria, 03-08 April 2011.**
- M.E.M. DERDER, HENRY B., AMENNA M., BAYOU B., MAOUCHE S., BESSE J., AYACHE M. AND ABTOUT A : Evidence for bloc rotation tectonics in the seismic Chelif basin (northern Algeria) from paleomagnetic investigations, **European Geosciences Union (EGU), General Assembly 2010, Vienna, Austria, 15 – 20 May 2010.**
- M.E.M. DERDER, B. HENRY, H. DJELLIT, C. DORBATH, H. YMEL, S. GHARBI, M. GUEMACHE AND A. ABTOUT : Bloc rotation tectonics in northern Algeria revealed by paleomagnetic investigations in the "Mitidja" basin (Algiers area, Algeria), "International Earthquake Symposium Kocaeli 2009". 17-19 August **2009**
- M.E.M. DERDER, B. HENRY, B. BAYOU, H. DJELLIT, M. AMENNA, A., M.A. GUEMACHE and A. HEMMI: Preliminary results from paleomagnetic study of the revisited Hassi Bachir formation, central Sahara (Algeria); **European Geosciences Union, (EGU), General Assembly, Vienna, Austria, 15– 22 April 2007.**
- M.E.M. DERDER, B. HENRY, B. BAYOU, M. AMENNA, , A. KHALDI, A. OUABADI H. DJELLIT and H. BELLON, New African Lower Carboniferous paleomagnetic pole from intrusive rocks of the Algerian Sahara and geodynamical implications; **European Geosciences Union, (EGU) General Assembly, Vienna, Austria, 2– 7 April 2006.**