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Date de naissance : 01/01/1967 à Taounate
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PROFIL

- Professeur de l'Enseignement Supérieur, Grade C
- Enseignant Chercheur en Géologie depuis 27 ans à l'Université Moulay Ismail,
- Responsabilité Actuelle : Directeur du Pôle des Etudes Doctorales, Université Moulay Ismail.

RESPONSABILITES ACADEMIQUES ET ADMINISTRATIVES RECENTES

- Directeur du Pôle des Etudes Doctorales, Université Moulay Ismail depuis le 13 novembre 2023.
- Directeur du CEDoc_FSM, Centre d'Etudes Doctorales, Faculté des Sciences de Meknès, du 13 juin 2022 au 12 novembre 2023.
- Directeur du Centre Commun d'Analyses (CCA) de la Faculté des Sciences de Meknès du 13 juin 2022 au 12 novembre 2023.

THÈSES ENCADRÉES ET SOUTENUES DURANT LES CINQ DERNIÈRES ANNEES

1. Structural control of tin mineralization in the Bou El Jaj region of the variscan Moroccan Central Massif : geological and mining mapping, micro-déformations, modeling and mineral dating " / SEGHIR El Mustapha, soutenue le 25 / 06 / 2019.
2. Active tectonics and recent structural evolution of the south rifian ridges, front of the rif belt, Morocco : Inferences from morphotectonic analysis and Field Data. / AMINE Afaf, soutenue le 31 / 10 / 2020.
3. Fracturation et microdéformations associées au plissement dans les séries carbonatées viséennes allochtones de la partie Est du Massif Central Hercynien Marocain. / BOUABADI Ibtissam, soutenue le 31 / 10 / 2020.
4. Etude structurale de la bordure Nord du Haut Atlas Central (Maroc) : Apport des données géophysiques, géomatiques, tectoniques et sédimentaires. / EL MAKRINI Hassane, soutenue le 27 / 02 / 2021.
5. Applications des techniques magnétiques (paléomagnétisme et anisotropie de la susceptibilité magnétique) à l'analyse de l'évolution tectonique des bassins sédimentaires du Haut Atlas Central (Maroc). PhD University of Zaragoza/ Bennacer MOUSSAID, soutenue en 2019, Directeurs de Thèse : Villalaín Santamaría Juan José, Casas Sainz Antonio et El Ouardi Hmidou.

PROJETS DE RECHERCHE DES CINQ DERNIERES ANNEES

- Responsable du côté marocain du projet : Mesozoic evolution of the western Tethys through the study of magnetic fabrics: connection with Iberian rotation (2021-2024), coordonné par Pr. Teresa Roman Berdiel, Université de Saragosse, Espagne.
- Responsable du côté marocain du projet : Mesozoic tectonic and Cenozoic shortening of the Central High Atlas: 3D modelling (2016-2020), coordonné par Pr. Teresa Roman Berdiel, Université de Saragosse, Espagne.

1. Teresa Román-Berdiel, Belén Oliva-Urcia, Antonio M Casas-Sainz, Pablo Calvín, Bennacer Moussaid, Ruth Soto, Marcos Marcén, **Hmidou El-Ouardi**, Andrés Pocoví, Andrés Gil-Imaz (2023), Geodynamic Evolution During the Mesozoic and Cenozoic in the Central High Atlas of Morocco from Anisotropy of Magnetic Susceptibility, chapter in: Tectonic Evolution of the Moroccan High Atlas: A Paleomagnetic Perspective: Magnetic Techniques (Anisotropy of Magnetic Susceptibility and Paleomagnetism) Applied to the Understanding of the Evolution of an Intra-Plate Mountain Chain. *Springer International Publishing*, pp. 347-486.
2. Antonio M Casas-Sainz, Pablo Santolaria, Tania Mochales, Andrés Pocoví, Esther Izquierdo, **Hmidou El-Ouardi**, Bennacer Moussaid, Ahmed Manar, Vicente C Ruiz-Martínez, Marcos Marcén, Sara Torres-López, Andrés Gil-Imaz, Teresa Román-Berdiel, Belén Oliva-Urcia, Pablo Calvín (2023), Structure of the Central High Atlas (Morocco). Constraints from Potential Field Data and 3D Models, chapter in : Tectonic Evolution of the Moroccan High Atlas: A Paleomagnetic Perspective: Magnetic Techniques (Anisotropy of Magnetic Susceptibility and Paleomagnetism) Applied to the Understanding of the Evolution of an Intra-Plate Mountain Chain. *Springer International Publishing*, pp. 75-246.
3. Bennacer Moussaid, Hmidou El-Ouardi, Antonio M Casas-Sainz, Andrés Pocoví, Teresa Román-Berdiel, Belén Oliva-Urcia, Vicente C Ruiz-Martínez, Juan José Villalaín (2023), The Geological Setting of the Moroccan High Atlas and Its Plate Tectonics Context, chapter in : Tectonic Evolution of the Moroccan High Atlas: A Paleomagnetic Perspective: Magnetic Techniques (Anisotropy of Magnetic Susceptibility and Paleomagnetism) Applied to the Understanding of the Evolution of an Intra-Plate Mountain Chain. *Springer International Publishing*, pp. 1-73.
4. Antonio M Casas-Sainz, Juan J Villalaín, Teresa Román-Berdiel, Pablo Calvín, Marcos Marcén, Esther Izquierdo, Pablo Santolaria, Andrés Pocoví, Tania Mochales, Belén Oliva-Urcia, Hmidou El-Ouardi, Bennacer Moussaid (2023), Kinematics of Structures and Basin Evolution in the Central High Atlas. Constraints from AMS and Paleomagnetic Data, chapter in : Tectonic Evolution of the Moroccan High Atlas: A Paleomagnetic Perspective: Magnetic Techniques (Anisotropy of Magnetic Susceptibility and Paleomagnetism) Applied to the Understanding of the Evolution of an Intra-Plate Mountain Chain. *Springer International Publishing*, pp. 487-646.
5. Maria MAZOUAR, **Hmidou EL OUARDI**, Afaf AMINE, Mohamed HABIBI, Mustapha BOUALOUL and Abdelhadi EL OUALI (2023), Tectonic evolution of the Triassic diapirs in the southern front of the Rif belt, Northern Morocco. *Geogaceta* 72, pp. 19-22.
6. **El Ouardi H.**, Karaoui B., Mahmoudi A. (2022), Comment on The Cu-Pb-Zn-bearing veins of the Bou Skour deposits (Eastern Anti-Atlas, Morocco): structural control and tectonic evolution by Aabi A., et al. *Comptes Rendus. Géoscience* 354 (G1), 119-123
7. **El Ouardi H.**, Amine A., Zouiten S., El Makrini S., Habibi M., Hassane El Makrini H. and Boualoul M. (2022) - Origin of clastic dykes and normal faults affecting the lacustrine limestones within the Neogene Saiss basin, Northern Morocco. *Geogaceta* 72, pp. 63-66.
8. Mazouar M., **El Ouardi H.**, Habibi M., Amine A. and El Ouali A. (2022) - Tectonic setting of the Triassic diapirs in the front of the Rif belt, Northern Morocco. *Geogaceta* 72.
9. Amine A., **El Ouardi H.**, M Mazouar, M Habibi, M Boualoul (2021), Topography and drainage system evolution in the “Volubilis basin” (South Rifain Ridges, Northern Morocco). *Geogaceta*, 70, 11-14

10. Amine A., **El Ouardi H.**, Zebari M., El Makrini H. (2020), Active tectonics in the Moulay Idriss Massif (South Rifian Ridges, NW Morocco): New insights from geomorphic indices and drainage pattern analysis. *Journal of African Earth Sciences* 167, 103833
11. Amine A., **El Ouardi H.**, Zebari M., El Makrini H., Habibi M. (2020), Relative landscape maturity in the South Rifian ridges (NW Morocco): Inferences from DEM-based surface indices analysis. *Applied Computing and Geosciences* 6, 100027
12. El Makrini H., Moussaid B., **El Ouardi H.**, Mahamat Ibrahim IR. (2019), Lineament analysis in the outcropping rocks of the Ouaouizaght syncline, Central High Atlas. *Geogaceta* 66, 119-122
13. Ruth S. & Casas-Sainz A. & Oliva-Urcia B. & García-Lasanta C. & Izquierdo-Llavall, E. & Moussaid B., Kullberg C.J., Román-Berdiel T., Sánchez-Moya Y., Sopena A., Torres-López S., Villalaín J.J., **El Ouardi H.**, Gil-Peña I. & Hirt A. (2019) - Triassic stretching directions in Iberia and North Africa inferred from magnetic fabrics. *Terra Nova*. <https://doi.org/10.1111/ter.12416>
14. Muzirafuti A., Boualoul M., Randazzo G., Lanza S., Allaoui A., **El Ouardi H.**, Habibi M., Ouhammad H. (2019) - The use of remote sensing for water protection in the karst environment of the tabular Middle Atlas, The Causse of El Hajeb, Morocco. *AIT Series, Trends in Earth Observation*, Volume 1, 131-134.

COMMUNICATIONS INTERNATIONALES DES CINQ DERNIÈRES ANNÉES

1. Amine A. & **El Ouardi H.** (2021) -Volubilis piggy-back basin development in response to growing fault-related folds, from the South Rifian ridges, Northern Morocco. DOI:10.1130/abs/2021AM-367428, *Conference: GSA Connects 2021 in Portland, Oregon, USA*.
2. Pablo Calvín Ballester, Antonio María Casas Sáinz, Juan José Villalaín Santamaría, Teresa Román Berdiel, T Mochales, Pablo Santolaria Otín, B Moussaid, A Gil, Belén Oliva Urcia, Andrés Pocoví Juan, S Torres López, Esther Izquierdo Llavall, F Bógalo, I Falcón, Vicente Carlos Ruíz Martínez, **Hmidou El Ouardi**, EM Sánchez Moreno, Marcos Marcén Alberó, Á Herrejón Lagunilla, A Jiménez (2021)- Las remagnetizaciones interpliegue como herramienta cuantitativa de restitución en cuencas sedimentarias invertidas. *Geotemas* 18, p.41, *Sociedad Geológica de España*.
3. Tania Mochales, Ahmed Manar, Teresa Román Berdiel, Sara Torres, Irene Falcón, Antonio María Casas Sáinz, Pablo Calvín Ballester, Vicente Carlos Ruíz Martínez, Andrés Gil Imaz, María Felicidad Bógalo Román, Bennacer Moussaid, Juan José Villalaín Santamaría, Belén Oliva Urcia, Pablo Santolaria Otín, Elisa María Sánchez Moreno, Andrés Pocoví Juan, **Hmidou El Ouardi**, Esther Izquierdo Llavall, Marcos Marcén Alberó, Ángela Herrejón Lagunilla, Ángela Jiménez (2021)- Geometría y petrofísica como input para la modelización geofísica. *Geotemas* 18, p. 549, *Sociedad Geológica de España*.
4. **El Ouardi H.** (2020)-Fracture network and karst system distribution in the tabular Middle Atlas, Morocco. *SSG-SA, vol. 13, ID 522, Saudi Geological Survey*.
5. Amine A., **El Ouardi H.** & Zebari M. (2020)- Active tectonics in the Moulay Idriss Massif (South Rifian Ridges, NW Morocco) : New insights from geomorphic indices and drainage pattern analysis. DOI:10.1130/abs/2020AM-355371, *Conference: GSA 2020 Connects Online, USA*.
6. Tania Mochales, Ahmed Manar, Antonio María Casas-Sainz, Pablo Calvin, Pablo Santolaria, Juan José Villalaín, Vicente Carlos Ruiz, Andrés Gil-Imaz, Sara Torres, Andrés Pocoví, Bennacer Moussaid, Teresa Román-Berdiel, **Hmidou El Ouardi**, Esther Izquierdo-Llavall, Belén Oliva-Urcía, Marcos Marcén, María Felicidad Bógalo, Elisa

- Sánchez-Moreno, Ángela Herrejón, Ángela Jiménez (2020)-Geometrical and chronological constraints for magnetic signatures in the Central High Atlas, *EGU European Geological Union, Vienna, EGU2020-7785-5*.
7. Pablo Calvín, Juan J Villalaín, Antonio M Casas-Sainz, Teresa Román-Berdiel, Pablo Santolaria, Tania Mochales, Irene Falcón, Bennacer Moussaid, Belén Oliva-Urcia, Sara Torres-López, Esther Izquierdo, María F Bógalo, Andrés Gil-Imaz, Vicente C Ruíz, Elisa M Sánchez-Moreno, Marcos Marcén, Ángela Herrejón, Ángela Jimenez-Sainz, **Hmidou El Ouardi**, Andrés Pocoví (2020)- Palinspastic restorations using interfolding remagnetizations. The case of the Cretaceous widespread remagnetization of the Central High Atlas (Morocco). *EGU European Geological Union, Vienna, EGU2020-17600-5*.
 8. Teresa Román-Berdiel, Belén Oliva-Urcia, Antonio M Casas-Sainz, Pablo Calvín, Bennacer Moussaid, Esther Izquierdo, Vicente Carlos Ruiz, Andrés Pocoví, Andrés Gil-Imaz, Sara Torres, Juan José Villalaín, **Hmidou El Ouardi**, Tania Mochales, Pablo Santolaria, Marcos Marcén, María Felicidad Bógalo, Elisa M Sánchez-Moreno, Ángela Herrejón, Ángela Jiménez-Sainz, Irene Falcón (2020)- Contribution of magnetic fabric to the knowledge of Mesozoic and Cenozoic kinematic evolution in the Central High Atlas. *EGU European Geological Union, Vienna, EGU2020-13734-5*.
 9. Pablo Santolaria, Antonio M Casas, Pablo Calvín, Tania Mochales, **Hmidou El Ouardi**, Esther Izquierdo, Teresa Román-Berdiel, Sara Torres, Andrés Pocoví, Belén Oliva-Urcia, Bennacer Moussaid, Marcos Marcén, Andrés Gil-Imaz, Vicente Carlos Ruiz, María Felicidad Bógalo, Elisa M Sánchez-Moreno, Ángela Herrejón, Ángela Jiménez, Juan José Villalaín, Irene Falcón (2020)- 3-D geological model of the Central High Atlas fold-and-thrust belt. *EGU European Geological Union, Vienna, EGU2020-8036-5*.
 10. Antonio M Casas, Pablo Calvín, Pablo Santolaria, Tania Mochales, **Hmidou El Ouardi**, Esther Izquierdo, Teresa Román-Berdiel, Sara Torres, Andrés Pocoví, Belén Oliva-Urcia, Bennacer Moussaid, Marcos Marcén, Andrés Gil-Imaz, Vicente Carlos Ruiz, María Felicidad Bógalo, Elisa Sánchez, Ángela Herrejón, Ángela Jiménez, Juan José Villalaín, Irene Falcón (2020)- Varying thrust geometry along the Central Atlas fronts: structural criteria for 3-D reconstruction. *EGU European Geological Union, Vienna, EGU2020-7670-5*.
 11. Román-Berdiel, Teresa & Oliva-Urcia, Belén & Casas-Sainz, Antonio & Calvín, Pablo & Moussaid, Bennacer & Pocoví Juan, Andrés & Gil Imaz, Andrés & Carlos Ruiz, Vicente & Torres-López, Sara & Bógalo, María & Izquierdo-Llavall, Esther & Mochales, Tania & Sánchez-Moreno, Elisa & Herrejón, Ángela & **El Ouardi, Hmidou** & Villalaín, Juan. (2019) - Magnetic fabric study of Mesozoic units from the Central High Atlas. *EGU European Geological Union, Vienna, Geophysical Research Abstracts, Vol. 21, EGU2019-2629-2*.
 12. Antonio Casas, Pablo Calvín, Sara Torres, Andrés Pocoví, Tania Mochales, **Hmidou El Ouardi**, Esther Izquierdo, Teresa Román-Berdiel, Belén Oliva-Urcia, Bennacer Moussaid, Marcos Marcén, Andrés Gil-Imaz, Vicente Carlos Ruiz, María Felicidad Bógalo, Elisa Sánchez, Angela Herrejón, Angela Jimenez and Juan José Villalaín (2019) - Tectonic shortening, internal deformation and pre-compressional features constrained by paleo-magnetism and AMS in the Central High Atlas (Morocco). *EGU European Geological Union, Vienna, Geophysical Research Abstracts, Vol. 21, EGU2019-4358*.
 13. Pablo Calvín, Juan J. Villalaín, Antonio Casas-Sainz, Sara Torres-López, Bennacer Moussaid, Belén Oliva-Urcia, Vicente C. Ruíz-Martínez, Ruth Soto and **Hmidou El Ouardi** (2019) - Interfolding remagnetizations as a key to restore pre-compressional structures: the case of the 100 Ma remagnetization of the Central High Atlas (Morocco).

EGU European Geological Union, Vienna, Geophysical Research Abstracts, Vol. 21, EGU2019-7934-1.

14. Tania Mochales, Antonio Casas, Pablo Calvín, Sara Torres, Andrés Pocoví, **Hmidou El Ouardi**, Esther Izquierdo, Teresa Román-Berdiel, Belén Oliva-Urcia, Bennacer Moussaid, Marcos Marcén, Andrés Gil-Imaz, Vicente Carlos Ruiz, María Felicidad Bógalo, Elisa Sánchez, Ángela Herrejón, Ángela Jimenez and Juan José Villalaín (2019) - Magnetic and gravimetric 2.5D modelling of the Central Atlas Range, *EGU European Geological Union, Vienna, Geophysical Research Abstracts, Vol. 21, EGU2019-18001-1.*
15. Juan José Villalaín, Antonio M Casas-Sainz, Pablo Calvín, Sara Torres, Teresa Román-Berdiel, Irene Falcón, Vicente C Ruiz-Martínez, Belén Oliva-Urcia, Andrés Pocoví, Bennacer Moussaid, Esther Izquierdo, Tania Mochales, María Felicidad Bógalo, Adrés Gil-Imaz, Marcos Marcén, Elisa M Sánchez, Ángela Herrejón and **Hmidou El Ouardi** (2019) - High resolution paleomagnetic study in the Central High Atlas (Morocco). New insights into the widespread Cretaceous remagnetization. *EGU European Geological Union, Vienna, Geophysical Research Abstracts, Vol. 21, EGU2019-15740.*
16. Afaf Amine, **Hmidou El Ouardi** and Mjahid Zebari (2019) - Evaluating the impact of active tectonism in the Moulay Idriss massif, South Rifain Ridges, Northern Morocco. *EGU European Geological Union, Vienna, Geophysical*