

Variscan 2012



a special meeting of French and Italian geological societies
Sassari 22-23 May

May 22

8.45-9:00: Opening address

Geodynamics and role of inheritance

9:00-9:20: Stampfli G. M. (key note): *The Geodynamics of the Pangaea formation.*

9:20-9:40: Frizon de Lamotte D. (key note): *The Late Paleozoic Geodynamic Evolution of North Africa and Arabia: Evidence for Late Devonian major uplift and diffuse extensional deformation.*

9:40-10:00: Manatschal G. (key note): *Significance of orogenic collapse in pre-structuring the continental lithosphere and subsequent rifting: role of inheritance, granulites, and magmatic underplating.*

10:00-10:20: Spalla M. I., Marotta A. M., Rebay G., Zanoni D., Zucali M.: *The transition from Variscan collision to continental break-up in the Alps: advices from the comparison between natural data and numerical model predictions.*

10:20-10:35: Averbuch O., Piromallo C., Izart A.: *A model of heterogeneous deformation of the Variscan lithosphere roots in Northern France by Late Carboniferous-Early Permian times: implications for the Late Variscan orogenic collapse and the Paris Basin development.*

10:35-10:50: Linnemann U.: *The Cadomian orogen and its incorporation in the Variscan belt - A perspective from the Saxo-Thuringian Zone (Bohemian Massif).*

10:50-11:20 Coffee

Tectonics and crustal evolution

11:20-11:35: Ballèvre M., Bosse V., Ducassou C., Paquette J.-L., Peucat J.-J., Pitra P., Poujol M., Ruffet G., Martínez Catalán J. R., Abati J., López-Carmona A., Díez Fernández R.,

Arenas R., Castiñeiras P., Fernández-Suárez J., Sánchez Martínez S., Gómez Barreiro J.: *Geometry and correlation of the nappe stack in the Ibero-Armorican arc across the Bay of Biscay: a joint French-Spanish project. Part 1: the data.*

11:35-11:50: Martínez Catalán J. R., Abati J., López-Carmona A., Díez Fernández R., Arenas R., Castiñeiras P., Fernández-Suárez J., Sánchez Martínez S., Gómez Barreiro J., Ballèvre M., Bosse V., Ducassou C., Paquette J.-L., Peucat J.-J., Pitra P., Poujol M., Ruffet G.: *Geometry and correlation of the nappe stack in the Ibero-Armorican arc across the Bay of Biscay: a joint French-Spanish project. Part 2: the models.*

11:50-12:05: Gutiérrez-Alonso G., Pastor-Galán D., Fernández-Suárez J., Jeffries T., Collins A.S., Johnston S.T., Weil A.B.: *Late-Post Variscan buckling of the Ibero-Armorican Arc: The lithospheric scale tale.*

12:05-12:20: Carreras J., Druguet E.: *Tectonic regime in the NE-Iberian Variscides: significance for orogenic zonation.*

12:20-12:35: Avigad, A., Gerdes, A., Morag, N., BechstädT.,T.: *Cambrian sandstones from Morocco and SW Sardinia: Coupled U-Pb-Hf of detrital zircons with implications for provenance and crustal evolution.*

12:35-12:50: Casas J.M., Navidad M., Castiñeiras P., Liesa M.: *Ordovician magmatism in NE Iberia, comparison with the Iberian massif and Sardinia.*

12:50-13:05: Benabbou M., Soula J. C., Brusset S., Béziat D., Roddaz M., Youbi N., Doblás M., Driouch Y., Bennouna A., Dahire M., El Hachimi H., Khalil Bensalah M.: *Carboniferous foreland-basin deposits, interbedded magmatism and kinematic evolution of the Mesetan fold-thrust belt of Morocco.*

13:05-14:05 Lunch

Sources of Variscan thermal events

14.05-14.25: Coltice N (key note): *Global warming of the mantle at the origin of flood basalts over supercontinents: implications from Pangaea breakup.*

14.25-14.40: Janoušek V., Lexa O., Schulmann K., Maierova P.: *What drives remelting of thickened continental crust in the Bohemian Massif?*

14.40-14.55: Villaros A., Moyen J. F.: *Modelling Granite genesis: The Velay Complex (Eastern French Massif Central, France)-a thermodynamic approach.*

14.55-15.10: Rossi Ph., Cocherie A., Fanning C. M.: *U-Pb-zircon SHRIMP precise dating of volcanic-plutonic formations in the Corsica Batholith: evidence of a thermal Upper-Stephanian to Lower Permian peak.*

15.10-15.25: Youbi N., Doblás M., Ernst R. E., Söderlund U., Gaggero L., Martins L., Hicham A., Cabanis B., Benabbou M., Mata J., Madeira J., Eric Font E., El Hachimi H., Khalil Bensalah M.: *Age, distribution, nature, origin, and environmental impact of the Permo-Carboniferous European Northwestern-African Magmatic Province.*

15.25-15.40: Tabaud A.-S., Rossi Ph., Whitechurch H., Skrzypek E., Schulmann K., Guerrot C., Paquette J.-L.: *The Visean Mg-K magmatism as the result of the involvement of radiogenic heat production in the Variscan internal ("Moldanubian") zone. Evidence from the Vosges Mts (NE France).*

15.40-15.55: Li X-H., Lin W., Faure M.: SIMS U-Pb zircon dating of migmatites and high Mg-K intrusions from the Variscan orogenic complex of Corsica: from crustal anatexis to mantle melting.

16:00-16:30: Coffee

Distinguished lectures

16.30-16:55: Edel J.-B.: *Structure and geodynamic evolution of the Variscan belt during the Carboniferous derived from geophysical data.*

16:55-17:20: Von Raumer, J.: *Pre-Mesozoic Alpine basements – their place in the European Paleozoic framework*

17:20-19:00 Poster session

May 23

Sutures and orogenic accretion

8:45-9:00: Sánchez Martínez S., Arenas R., Gerdes A., Potrel A., Fernández-Suárez J.: *Considering a new tectonic setting for the Devonian ophiolites of the Variscan suture: Isotope geochemistry and revised geochronology of the Purrido Ophiolite (Cabo Ortegal Complex, NW Iberian Massif).*

9:00-9:15: Arenas R., Díez Fernández R., Sánchez Martínez S., Abati J., Gerdes A., Fernández-Suárez J., Andonaegui P., González Cuadra P., Rubio Pascual F. J., Fuenlabrada J. M., López Carmona A., Albert R.: *Allochthonous terranes involved in the Variscan suture from NW Iberia: A review of their origin and tectonothermal evolution.*

9:15-9:30: Berger J., Féménias O., Mercier J. C. C., Ohnenstetter D., Bruguier O.: *Ophiolite and eclogites from Limousin (French Massif Central): keys to Variscan subduction processes.*

9:30-9:45: Lardeaux J. M., Schulmann K., Faure M., Lexa O., Janousek V.: *Variscan orogeny in Bohemian Massif and French Massif Central: Differences and similarities.*

9:45-10:00: Bergomi M. A., Boriani A.: *Late Neoproterozoic - Early Paleozoic accretion of the Southalpine and Austroalpine basements of Central Alps (Italy).*

10:00-10:15: Plissart G., Monnier C., Diot H., Mărunțiu M., Neubauer F., Demaiffe D., Debaille V.: *Recording of the easternmost Variscan ophiolitic complex: accretion and obduction of the Balkan-Carpathian oceanic crust (BCO - Romania, Serbia, Bulgaria) evidenced by Sm-Nd and Ar-Ar geochronology.*

10:15-10:30: Schneider J., Corsini M., Letourneur L., Loury C.: *New characterization of basic rocks from Cap Pinet (Maures-Tanneron Massif, SE France): geodynamic implications for the Southwestern European Variscan belt.*

10:30-10:00 Coffee

Carboniferous deformation, magmatism and crustal flow

11:00-11:15: Denèle Y., Barbey P., Paquette J.-L., Laumonier B., Olivier P.: *Time scale of gneiss dome formation and ductile flow: The Mont-Louis, Ax-les-Thermes and La Jonquera plutons and related gneiss domes in the French Pyrenees.*

11:15-11:30: Faure M.: *Crustal melting and tectonic setting of plutonism in the Variscan French Massif Central and Armorican Massif.*

11:30-11:45: Shail R.: *Latest Carboniferous to Early Permian post-Variscan tectonics and magmatism in the Rhenohercynian Zone of SW England.*

11:45-12:00: Gaggero L., Oggiano G., Casini L.: *The "Leptyno-Amphibolite" Complex in the Asinara Island (Sardinia): insights into a long-lived peri-Gondwanan basement by U-Pb geochronology and geochemistry.*

12:00-12:15: Martínez Catalán J. R., Rubio Pascual F. J., Díez Montes A., Alcock J. E., Díez Fernández R., Gómez Barreiro J., Dias da Silva I., González Clavijo E., Ayarza P.: *The late Variscan HT/LP metamorphic event in the Iberian branch of the Variscides: Relationships with crustal thickening, nappe emplacement, orocline development, and crustal evolution.*

12:15-12:30: Corsini M., Schneider J.: *Late collisional exhumation of the lower crust in a transpressive environment : insight of the Maures-Tanneron massif (SE France).*

12:30-12:45: Derez T., Berwouts I., Haerinck T., Maussen K., Muechez P., Vandycke S., Sintubin M.: *The North-Armorican Shear Zone (Brittany, France) revisited.*

12:45-13:00: Chopin F., Corsini M., Schulmann K., El Houicha M.: *Late Carboniferous Rehamna metamorphic dome in the Morocco Variscides: a structural and ⁴⁰Ar-³⁹Ar geochronological study.*

13:00-14:00 Lunch

Numerical and analogue modelling in Variscan belt

- 14.00-14.20: Gerya T., Ueda K., Sizova E., Vogt K., Dymkova D. (key note): *Geodynamic regimes of post-subduction collision: numerical modeling and implications for the origin of ultrahigh-temperature metamorphic complexes.*
- 14.20-14.35: Alcock J. E., Rubio Pascual F. J., Martinez Catalàn J. R., Diez Montes A., Arenas R., Dias Da Silva I., Gonzalez Clavijo E.: *Thrust geometry and the location of gneiss domes: implications of thermal models of the Central Iberian crustal domain during the Variscan.*
- 14.35-14.50: Maierová P., Lexa O., Schulmann K., Čadek O.: *Linking modern and ancient large hot orogens through numerical modeling.*
- 14.50-15.05: Pastor-Galán D., Zulauf G., Gutiérrez-Alonso G., Dietl C.: *Late Variscan lithospheric scale oroclinal buckling in Iberia. Insights from analogue modeling.*
- 15.05-15.20: Puccini A., Casini L., Cuccuru S., Mantovani F., Xhixha M., Oggiano G.: *Thermal budget of the European Variscides.*
- 15.20-15.50 Coffee

Thermodynamics and metamorphic modeling in orogens

- 15:50-16:05: Siron G., Goncalves P. Marquer D.: *The origin of high geothermal gradient: post-orogenic extension or large intrusion in the middle crust? A case study from the Agly Massif, French Pyrenees.*
- 16:05-16:20: Racek M., Lexa O., Jeřábek P.: *Constraints on polyphase P-T evolution of mantle rocks from Dunkelsteiner Wald granulite massif.*
- 16:20-16:35: Pitra P., Ballèvre M., Ruffet G.: *Inverted metamorphic field gradient towards a Variscan suture zone (Champtoceaux Complex, Armorican Massif, France).*
- 16:35-16:50: Braga R., Massonne H. J., Langone A., Tiepolo M.: *The Carboniferous evolution of high-pressure metapelites from the Spessart Crystalline Complex, Germany, and the Ulten Zone, Italian Alps.*
- 16:50-17:05: Skrzypek, E., Stipska, P.: *The origin of zircon and the significance of U–Pb ages in high-grade metamorphic rocks: a case study from the Variscan orogenic root (Vosges Mountains, NE France)*
- 17:05-17:20: Scicchitano M., Liberi F., Piluso E.: *Two-stage partial melting in the migmatites of the Northern Catena Costiera (Calabria, Southern Italy): evidence from petrographic, petrological and geothermobarometric data.*

17:30 – 19:00: Poster session