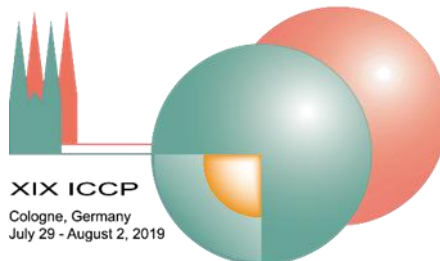




**19TH INTERNATIONAL CONGRESS ON THE
CARBONIFEROUS AND PERMIAN
(XIX ICCP 2019)**

Cologne, Germany, 29.7.–2.8. 2019

PROGRAMME



Programme overview and major themes of the XIX ICCP

A. THE WORLD OF STRATIGRAPHY

B. THE WORLD OF PALAEOONTOLOGY

C. THE WORLD OF FACIES, ENVIRONMENTS AND BASIN ANALYSIS

D. THE WORLD OF OCEANS AND MOUNTAINS

E. THE WORLD OF ECONOMIC GEOLOGY

	Monday				Tuesday					Thursday				Friday										
	Room A1	Room A2	Room F		Room A1	Room A2	Room D	Room F		Room A1	Room A2	Room F		Room A1	Room A2	Room F								
from 08:00	Registration			from 08:00	Registration				from 08:00	Registration														
09:00-09:50	Opening Ceremony			08:45-09:25	Keynote - Peryt (Room A2)				08:45-09:25	Keynote - Nikolaeva (Room A2)			from 09:00	Registration										
09:50-10:30	Keynote - Linnemann et al. (Room A2)			09:30-09:45	B2. Carboniferous and Permian plants	A2 Carboniferous and Permian multistratigraphy and correlations		DGE Internal Meeting: Work packages III	09:30-09:45	A1.1. The redefinition of the base of the Carboniferous period	C2. Pennsylvanian and Permian paralic and non-marine environments of Central Europe		09:15-10:15	Coffee & Poster		Business Meeting Permanent Committee ICCP (Room F)								
			09:45-10:00									09:45-10:00												
			10:00-10:15										10:00-10:15											
			10:15-10:30						10:15-10:30					Keynote - Montañez (Room A2)										
10:30-11:00	Coffee Break			10:30-11:00	Coffee Break				10:30-11:00	Coffee Break			10:15-10:55											
11:00-11:15	A3. Late Carboniferous to early Triassic continental successions of Western Europe and Northern Africa	B1. Carboniferous and Permian marine biota: taxonomy, palaeoecology, palaeogeography	DGE Steering Group Meeting	11:00-11:15	B2. Carboniferous and Permian plants: taxonomy, palaeoecology, palaeogeography	A2 continued		DGE Internal Meeting: Work packages IV	11:00-11:15	A1.1. The redefinition of the base of the Carboniferous period	C2. continued		11:00-11:15	A4. Late Carboniferous to Triassic non-marine stratigraphy and biota	C5.2. Great Permian Triassic Transition: changes in ocean and on land	Annual Meeting German Subcommission on Carboniferous Stratigraphy (Room F)								
11:15-11:30							11:15-11:30						11:15-11:30											
11:30-11:45							11:30-11:45										11:30-11:45					11:30-11:45		
11:45-12:00						11:45-12:00		C3. The Permian basins of Central Europe – the state of the art	E1. Mississippian carbonate rocks in NW Europe –				11:45-12:00				11:45-12:00							
12:00-12:15						12:00-12:15								12:00-12:15				12:00-12:15						
12:15-12:30						12:15-12:30								12:15-12:30					12:15-12:30					
12:30-14:00	Lunch Break			12:30-14:00	Lunch Break				12:30-12:45	Photo Assembly			12:00-13:45	Lunch Break										
14:00-14:40	Keynote - Shen (Room A2)			14:00-14:40	Keynote - McGhee (Room A2)				12:45-14:15	Lunch Break			13:45-14:00	D1. Carboniferous and Permian palaeoceanography plate tectonics, and the evolution of relief	C5.2. Great Permian Triassic Transition: changes in ocean and on land	Annual Meeting German Subcommission on Carboniferous Stratigraphy (Room F)								
14:45-15:00	A1.3. Pennsylvanian stratigraphic correlation and GSSPs	C1. Carboniferous and Permian marine environments	DGE Internal Meeting: Work packages I	14:45-15:00	B2. Carboniferous and Permian plants	C5.1. Ecosystem response to change in the Permian	reservoir for deep geothermal energy		14:15-14:55	Keynote - Götz (Room A2)			14:15-14:30											
15:00-15:15									15:00-15:15					15:00-15:15	A4. Non-marine stratigraphy and biota	C4. Basins and environments from Gondwana and peri-Gondwana	Business Meeting DC Boundary (Room F)	14:30-14:45						
15:15-15:30			15:15-15:30					15:15-15:30				14:45-15:30	Closing ceremony											
15:30-16:00	Coffee Break			15:30-16:00	Coffee Break				15:30-15:45	Coffee Break			15:30-17:00	Farewell drink										
16:00-16:15	A1.3. Pennsylvanian stratigraphic correlation and GSSPs	C1. Carboniferous and Permian marine environments	DGE Internal Meeting: Work packages III	16:00-16:15	A1.2. The quest for a global Viséan-Serpukhovian Boundary	C5.1. Ecosystem response to environmental change in the Permian	E1 continued		15:45-16:15	Coffee Break														
16:15-16:30									16:15-16:30				16:15-18:00	Poster Social		Business Meeting DC Boundary (Room F)								
16:30-16:45									16:30-16:45															
16:45-17:00									16:45-17:00															
17:00-19:00	Poster Social			17:00-19:00	Poster Social																			
18:00-19:30	Business Meeting SCCS (Room D)			18:00-19:30	Business Meeting SPS (Room F)				19:00-01:00	Conference Diner														

MONDAY, JULY 29TH

From 08:00 Registration

Room A2

09:00-09:50 Opening Ceremony

Keynote

09:50-10:30 **LINNEMANN, U., SALAMON, M., PIECHA, M., GÄRTNER, A., HOFMANN, M. & ZIEGER, J.:**
The Central European Variscides – the heart of Pangea

10:30-11:00 Coffee Break

Room A1

A3. Late Carboniferous to early Triassic continental successions of Western Europe and Northern Africa
Chairpersons: A. Ronchi, J. López-Gómez, S. Bourquin

11:00-11:15 WEISSBRODT, V., BACHTADSE, V., SABER, H. & RONCHI, A.: Paleomagnetism of Permian basins in Morocco – a contribution to Late Paleozoic geodynamics in the Western Mediterranean

11:15-11:30 SPINA, A., BROGI, A., CAPEZZUOLI, E., CIRILLI, S. & LIOTTA, D.: The upper Palaeozoic succession of Southern Tuscany (Italy): new data for the interpretation of their stratigraphy, palaeoenvironment and palaeogeographic setting

11:30-11:45 MUJAL, E., FORTUNY, J., OMS, O. & BOLET, A.: Ichnological and palaeoenvironmental constraints at the equator of Pangaea: the late Carboniferous to Middle Triassic terrestrial succession from the Catalan Pyrenees (NE Iberian Peninsula)

11:45-12:00 CHRISTOPHOUL, F., ARETZ, M., SAILLOL, M., NARDIN, É., CLEMENT, G. & SOARES, J.: Stephanian coal basins of the French Massif Central: state of the art on their stratigraphic and tectono-sedimentary context

12:00-12:15 MERCUZOT, M., BOURQUIN, S., DUCASSOU, C., PELLENARD, P., BECCALETTO, L., PIERSON-WICKMANN, A.-C., THOMAZO, C., SCHNYDER, J. & BAUDIN, F.: Palaeoenvironmental reconstitutions of the late Carboniferous to Permian intracontinental basins of the north-eastern Massif Central (France)

12:15-12:30 BOURQUIN, S., BECCALETTO, L., POCHAT, S., MERCUZOT, M., DUCASSOU, C. & LE CARLIER DE VESLUD, C.: New sedimentological and well-log data from the Permian of the southern Paris Basin (France): a complete sedimentary succession underestimated?

Room A2

B1. Carboniferous and Permian marine biota: taxonomy, palaeoecology, palaeogeography
Chairpersons: M. Amler, A. Ernst

11:00-11:15 ERNST, A.: Diversity dynamics and ecology of the Late Palaeozoic bryozoans

11:15-11:30 HUANG, X., WANG, Y., ZHANG, X. & WANG, X.: Fusulines from the Jueluotage Orogenic Belt, northwestern China: implications for the tectonic evolution of the North Tian-Shan Ocean

11:30-11:45 EL DESOUKY, H., HERBIG, H.-G. & KORA, M.: Taxonomy, palaeoecology and palaeobiogeography of the Pennsylvanian rugose corals of Egypt – a rare view to the southern fringe of the Palaeotethys

11:45-12:00	BRYNKO, I. & VEDERNIKOV, I.: Permian ichnofossils of the southeastern part of the Omolon Massif (Northeast Russia)
12:00-12:15	BECKER, R.T.: New Lower Carboniferous ammonoid faunas from the eastern Anti-Atlas, Southern Morocco
12:15-12:30	LIN, W. & WANG, X.: Late Mississippian (Carboniferous) rugose corals from the Jianshanzi section, Inner Mongolia
12:30-14:00	Lunch Break

Room A2

Keynote

14:00-14:40	SHEN, S.: The Permian timescale: progress, problems and perspectives
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Room A1

A1.3. Pennsylvanian stratigraphic correlation and GSSPs

Chairpersons: X. Wang, K. Ueno, A. Alekseev

14:45-15:00	HU, K., QI, Y., CHEN, J., HOGANCAMP, N.J. & LAMBERT, L.L.: Conodont biofacies at the Bashkirian-Moscovian (Pennsylvanian) transition and the Bashkirian-Moscovian Boundary in carbonate slope Naqing section, South China
15:00-15:15	UENO, K. & VILLA, E.: Discrimination of the fusuline genera <i>Verella</i> and <i>Eofusulina</i> and its implications for the base of the Moscovian in the Donets Basin (Ukraine)
15:15-15:30	NEMYROVSKA, T.: Moscovian-Kasimovian conodont transition in the Donets Basin, Ukraine
15:30-16:00	Coffee Break
16:00-16:15	QI, Y., BARRICK, J.E., HOGANCAMP, N.J., CHEN, J., HU, K., WANG, Q. & WANG, X.: Conodont assemblages across the Kasimovian-Gzhelian Boundary (late Pennsylvanian) in South China and implications for the selection of the stratotype for the base of the global Gzhelian Stage
16:15-16:30	WANG, X., QI, Y., WANG, Y., CHEN, J., BARRICK, J.E. & UENO, K.: Progress on the Gzhelian GSSP in South China
16:30-16:45	WANG, Y., UENO, K., WANG, X., TIAN, X. & HUANG, X.: Fusuline succession across the Kasimovian-Gzhelian Boundary in southern Guizhou, South China
16:45-17:00	ALEKSEEV, A.S., KULAGINA, E.I., SUNGATULLINA, G.M., SUNGATULLIN, R.K., NIKOLAEVA, S.V., KONONOVA, L.I., ZHURAVLEVA, N. & KUCHEVA, N.A.: Basu section (South Urals, Russia), a GSSP candidate for the base of the Moscovian (Middle Pennsylvanian): recent discoveries and prospects

Room A2

C1. Carboniferous and Permian marine environments

Chairpersons: H. Forke, O. Kossovaya

14:45-15:00	YAO, L., ARETZ, M., WIGNALL, P.B., CHEN, J., VACHARD, D., QI, Y., SHEN, S. & WANG, X.: Prolonged resurgence of coral-reef ecosystems after the Late Devonian extinctions
15:00-15:15	PRACHT, M.: Mississippian stratigraphy and facies distribution in Central Ireland (Co. Galway and Roscommon) during the Viséan (MFZ9 to MFZ13)

15:15-15:30	BLANKE, S., AMLER, M.R.W. & HERBIG, H.-G.: Fauna, biofacies and genesis of the Mississippian Erdbach Limestones (late Tournasian–earliest Viséan, Rhenish Mountains, Germany) – a unique facies development within the Kulm Basin
15:30-16:00	Coffee Break
16:00-16:15	FORKE, H. & HUGHES, G.W.: Application of sequence-biostratigraphy for biosteering in thin carbonate hydrocarbon reservoirs: a case study from the Khuff Formation, Late Permian
16:15-16:30	BLANCO-FERRERA, S., SANZ-LÓPEZ, J. & CÓZAR, P.: Carbonates from platform to basin-plain in the Mississippian–early Bashkirian of the Cantabrian Mountains (NW Spain)
16:30-16:45	FHEED, A., STRZELECKI, P.J., RADZIK, N., KRZYŻAK, A.T. & ŚWIERCZEWSKA, A.: Main diagenetic and petrophysical differences between the reef, slope and basinal facies: the Zechstein Limestone strata (Wolsztyn Ridge, W Poland)
16:45-17:00	ISOZAKI, Y.: End-Paleozoic extinction in cosmoclimatological context: global chilling by “non-bolide” extraterrestrial causes
17:00-19:00	Poster Session
18:00-19:30	Business Meeting International Subcommittee on Carboniferous Stratigraphy (Room D)

TUESDAY, JULY 30TH

Room A2

Keynote

- 08:45-09:25 **PERYT, T.M.:**
The origin and evolution of the North-European Zechstein basin: a Polish perspective
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Room A1

B2. Carboniferous and Permian plants: taxonomy, palaeoecology, palaeogeography

Chairpersons: A.-L. Decombeix, H. Kerp

- 09:30-09:45 DECOMBEIX, A.-L., GALTIER, J., MEYER-BERTHAUD, B., PRESTIANNI, C., HARPER, C.J. & TERREAUX DE FELICE, H.: Anatomically preserved plants from the Tournaisian of the Montagne Noire (France): an exceptional window into Early Mississippian floras
- 09:45-10:00 AGNIHOTRI, D. & TEWARI, R.: Floral diversity during the Permo-Carboniferous period in northwest Himalayan Kashmir region of India
- 10:00-10:15 SAXENA, A., SINGH, K.J., CLEAL, C.J., GUPTA, S. & BALI, R.: Diversity of *Rhacopteris* Flora from the Carboniferous deposits of Tethyan Himalayan sequences of Spiti and Kashmir basins, India
- 10:15-10:30 BLOMENKEMPER, P., ABU HAMAD, A., KERP, H. & BOMFLEUR, B.: The late Permian Treasure Trove of the Dead Sea region, Jordan
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10:30-11:00 Coffee Break

- 11:00-11:15 BACKER, M., BOMFLEUR, B. & KERP, H.: Reproductive biology of Cathaysian Callistophytales
- 11:15-11:30 ZHOU, W.: Dual climbing signals complexity of Permian tropical forest
- 11:30-11:45 PILLAI, S.S.K., MATHEWS, R.P., MURTHY, S., GOSWAMI, S., AGRAWAL, S. & SINGH, R.K.: Palaeofloral investigation based on morphotaxonomy, palynomorphs, biomarkers and stable isotope from Lalmatia coal mine of Rajmahal Lower Gondwana Basin, Goddar District, Jharkhand, India: an inclusive empirical study
- 11:45-12:00 LIU, L., PŠENIČKA, J., BEK, J., PFEFFERKORN, H.W. & WANG, J.: A *Palaeostachya guanglongii* plant from the Asselian (Permian) Taiyuan Formation in the Wuda Coalfield, Inner Mongolia, China
- 12:00-12:15 LI, D., WANG, J., WAN, S., PŠENIČKA, J., ZHOU, W., BEK, J. & VOTOČKOVÁ-FROJDOVÁ, J.: A new species of *Scolecopteris* (Marattiales) from the Asselian (Permian) of Inner Mongolia, China
- 12:15-12:30 WANG, J.: A whole noeggerathialean plant *Tingia unita* WANG from the earliest Permian peat-forming flora, Wuda Coalfield, Inner Mongolia
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Room A2

A2. Carboniferous and Permian multistratigraphy and correlations

Chairpersons: E. Poty, S. Shen

- 09:30-09:45 SEVASTOPULO, G., HANCE, L. & HOU, H.: The base of the Viséan: 50 years of research
- 09:45-10:00 ESTEBAN LOPEZ, S., BENDER, P. & HERBIG, H.-G.: Middle Tournaisian (lower Mississippian) conodonts and calcareous microbiota from the Hörre Nappe, eastern Rhenish Mountains, Germany
- 10:00-10:15 AKBAŞ, M. & OKUYUCU, C.: Fusulinid biostratigraphy and lithostratigraphy of the upper Bashkirian–lower Moscovian succession in the Hadim Nappe (central Taurides), southern Turkey
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10:15-10:30	GOREVA, N. & ALEKSEEV, A.: New data on Early Kasimovian (Pennsylvanian) conodonts of the central part of the Russian Platform
10:30-11:00	Coffee Break
11:00-11:15	POTY, E., MOTTEQUIN, B. & DENAYER, J.: An attempt of time calibration of the Tournaisian and Viséan stages (Lower and Middle Mississippian) based on long duration orbitally forced sequences
11:15-11:30	POINTON, M.A., CHEW, D.M., DELCAMBRE, B., OVTCHAROVA, M. & SEVASTOPULO, G.D.: High-precision U-Pb CA-ID-TIMS dates from the type Livian Substage (Mississippian) of Belgium
C3. The Permian basins of Central Europe – the state of the art Chairpersons: T.M. Peryt, J.W. Schneider	
11:30-11:45	PLOCH, I., RACZYŃSKI, P., VOIGT, S. & KIERSNOWSKI, H.: Transnational project on Carboniferous–Permian continental rocks of the Polish-Czech Intrasudetic Basin
11:45-12:00	KIERSNOWSKI, H., WOLAŃSKI, K. & ZARUDZKI, W.: Rotliegend wind laid HC traps: case studies from the Polish Basin and directions for traps prospecting, a palaeogeographical approach
12:00-12:15	GIBSON, M., WELLMAN, C. & TAYLOR, W.: Palynological analysis of the British Zechstein suggest a wetter Late Permian environment
12:15-12:30	RAVIDÀ, D., CARACCILO, L., HENARES, S. & STOLLHOFEN, H.: Allogenic and autogenic controls on the diagenesis of Permo–Triassic sediments of the SE Germanic Basin
Room D	
E1. Mississippian carbonate rocks in North-West Europe – reservoir for deep geothermal energy Chairpersons: M. Salamon, A. Thiel	
11:45-12:00	SALAMON, M. & THIEL, A.: DGE-ROLLOUT – transnational European cooperation for the development of deep geothermal energy from Dinantian Carbonates
12:00-12:15	VANBRABANT, Y. & PETITCLERC, E.: Deep geothermal potential of Dinantian limestone formations in Southern Belgium – perspectives for the next exploration campaign
12:15-12:30	LAURENT, A., AVERBUCH, O., BECCALETTO, L., CAPAR, L., GRAVELEAU, F., LACQUEMENT, F. & MARC, S.: New insight on the 3D geometry of the Nord-Pas-de-Calais coal basin (N France) and its Devonian–Carboniferous substratum by seismic imaging – contribution to a better definition of the low-energy geothermal resources
12:30-14:00	Lunch Break
Room A2	
Keynote	
14:00-14:40	MCGHEE, G.R.: Carboniferous giants and mass extinction: the legacy of the Late Palaeozoic Ice Age
Room A1	
B2. Carboniferous and Permian plants: taxonomy, palaeoecology, palaeogeography Chairpersons: A.-L. Decombeix, H. Kerp	
14:45-15:00	KERP, H. & BÖDIGE, H.: A late Permian mesoflora from Trebnitz near Gera (Thuringia, Germany)

15:00-15:15	SUN, W., ZHOU, W. & WANG, J.: A new species of <i>Eoangiopteris</i> from Permian “vegetational Pompeii”
15:15-15:30	WAN, S., ZHOU, W. & WANG, J.: Sigillarian strobili from the Asselian Wuda Tuff Flora: a preliminary study
15:30-16:00	Coffee Break
A1.2. The quest for a global Viséan-Serpukhovian Boundary Chairpersons: S. Nikolaeva, H.-G. Herbig,	
16:00-16:15	RICHARDS, B.C., NIKOLAEVA, S.V., KULAGINA, E.I., ALEKSEEV, A.I., GOROZHANINA, E.N., GOROZHANIN, V.M., KONOVALOVA, V.A., GOREVA, N. V., JOACHIMSKI, M.M. & GATOVSKY, Y.A.: The Viséan-Serpukhovian transition in the Verkhnyaya Kardailovka section South Urals, Russia
16:15-16:30	KORN, D. & WANG, Q.: Ammonoids and problems with correlation of the Viséan-Serpukhovian Boundary
16:30-16:45	SANZ-LÓPEZ, J., BLANCO-FERRERA, S., CÓZAR, P. & NIKOLAEVA, S.V.: The Millaró stratigraphic section, a potential candidate for the GSSP of the Viséan/Serpukhovian Boundary from the Cantabrian Mountains (Spain)
16:45-17:00	WANG, Q., QI, Y., SHENG, Q., CHEN, J., KORN, D. & NEMYROVSKA, T.I.: New progress on the study of the Viséan-Serpukhovian Boundary in South China

Room A2

C5.1. Ecosystem response to environmental change in the Permian

Chairpersons: D. Bond, Y. Sun

14:45-15:00	SOREGHAN, G.S., SOREGHAN, M.J. & HEAVENS, N.G.: Earth-system effects of explosive volcanism during the Late Paleozoic Ice Age
15:00-15:15	BLAKOV, A.: Climatic changes during the Permian at Northeast Russia (paleontological, sedimentological, mineralogical, and isotopic data)
15:15-15:30	LEE, S., SHI, G.R., WOO, J., NAKREM, H.A. & TAZAWA, J.-I.: True or Not? Capitanian mass extinction in the Boreal Realm
15:30-16:00	Coffee Break
16:00-16:15	SHI, G.R., YANG, B., LEE, S. & LUO, M.: Living in a sea of mud and erratics: exploring the ecological association and interactions between marine benthos and glacial dropstones, Middle Permian, southeast Australia
16:15-16:30	SUN, Y.: Conodont changeovers in the Early–Middle Permian of South China
16:30-16:45	MORY, A., BACKHOUSE, J. & HAIG, D.: The Late Paleozoic Ice Age in Western Australia
16:45-17:00	HAIG, D.: Early Permian transition from continental ice-sheet cover to warm-temperate episodes in the East Gondwana Lowlands

Room D

E1. Mississippian carbonate rocks in North-West Europe – reservoir for deep geothermal energy

Chairpersons: M. Salamon & A. Thiel

14:45-15:00	BROOThAERS, M., BOS, S., LAGROU, D. & LAENEN, B.: Deep geothermal energy in the Mississippian carbonates of the Campine Basin, northern Belgium
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15:00-15:15	MOZAFARI, M., GUTTERIDGE, P., RIVA, A., DEWIT, J., GARLAND, J., GEEL, K. & JAARSMA, B.: Microfacies analysis and diagenetic evolution of the Dinantian carbonates (Zeeland Formation), the Netherlands: revisited
15:15-15:30	TER BORGH, M. & VAN LOCHEM, H.: Porosity-depth trends in sandstones: implications for geothermal energy projects, a case study from the Netherlands
15:30-16:00	Coffee Break
16:00-16:15	LIPPERT, K., NEHLER, M., BALCEWICZ, M., IMMENHAUSER, A. & BRACKE, R.: Deep geothermal reservoir potential of Devonian carbonates in North Rhine-Westphalia: an outcrop analogue study
16:15-16:30	SANDMANN, S. & BECKER, S.: Mapping Mississippian carbonate rocks in the Velbert Anticline, Rhenish Slate Mountains, NW Germany
16:30-16:45	ARNDT, M., SALAMON, M. & FRITSCHLE, T.: Geothermal potential of Dinantian carbonates in the subsurface of the Lower Rhine Graben (North Rhine-Westphalia, Germany)
16:45-17:00	FRITSCHLE, T., SALAMON, M. & ARNDT, M.: Exploring the Deep Geothermal Energy Potential at Weisweiler, Germany: 3D-Modelling of Subsurface Mid-Palaeozoic Carbonate Reservoirs
17:00-19:00	Poster Session
18:00-19:30	Business Meeting International Subcommission on Permian Stratigraphy (Room F)

THURSDAY, AUGUST 1ST

Keynote

- NIKOLAEVA, S.V.:**
08:45-09:25 **Boundaries in sections, not in research: new and old Carboniferous stratotypes of Russia**

Room A1

A1.1. The redefinition of the base of the Carboniferous period

Chairpersons: M. Aretz, C. Corradini

- 09:30-09:45 ARETZ, M. & CORRADINI, C.: The redefinition of the Devonian/Carboniferous Boundary: state of the art
- 09:45-10:00 MARSHALL, J.: How the terrestrial record of the end Devonian Mass Extinction Event helps us to define the D-C Boundary
- 10:00-10:15 DENAYER, J., PRESTIANNI, C., MOTTEQUIN, B., HANCE, L. & POTY, E.: Revision of the Devonian-Carboniferous Boundary in Belgium and surrounding areas: a scenario
- 10:15-10:30 KUMPAN, T., KALVODA, J., BÁBEK, O., MATYS GRYGAR, T. & FRÝDA, J.: The Devonian-Carboniferous Boundary in the Moravian Karst (Czech Republic): a review
- 10:30-11:00 Coffee Break
- 11:00-11:15 QIE, W.: Devonian-Carboniferous Boundary in China
- 11:15-11:30 SPALLETTA, C., CORRADINI, C., FEIST, R., KORN, D., KUMPAN, T., PERRI, M.C., PONDRELLI, M. & VENTURINI, C.: Review of the Devonian-Carboniferous Boundary in the Carnic Alps (Austria and Italy)
- 11:30-11:45 KAISER, S.I., RASSER, M.W., SCHÖNLAUB, H.P., HUBMANN, B., SANDBERG, C.A., STREEL, M., BAHRAMI, A., YAZDI, M., PAPROTH, E. & KUMPAN, T.: The Hangenberg Crisis at the Devonian-Carboniferous boundary (DCB) – a „bottleneck“ for conodonts
- 11:45-12:00 TOLOKONNIKOVA, Z.: The influence of the Hangenberg Event on the Eurasia bryozoans
- 12:00-12:15 CORRADINI, C., MOSSONI, A., CORRIGA, M.G. & SPALLETTA, C.: The Devonian/Carboniferous Boundary in Sardinia (Italy)
- 12:15-12:30 MOTTEQUIN, B., BARTZSCH, K., SIMON, E. & WEYER, D.: Deep-water brachiopods at the Devonian-Carboniferous Boundary (Hangenberg Crisis): the Thuringian data (Germany)

Room A2

C2. Pennsylvanian and Permian paralic and non-marine environments of Central Europe

Chairpersons: C. Hartkopf-Fröder, S. Opluštil

- 09:30-09:45 RÖSSLER, R.: Chemnitz – the most complete Permian ecosystem on Earth
- 09:45-10:00 OPLUŠTIL, S. & SÝKOROVÁ, I.: Dynamics of peat accretion of the Lower Pennsylvanian Prokop Coal mire (Upper Silesian Basin)
- 10:00-10:15 HADRO, J. & JURECZKA, J.: Recent Experience of CBM production from low permeability coal seams in Poland and its implications for CBM development in Variscan coal basins of Europe
- 10:15-10:30 JÄGER, H., REUTNER, T. & WIESMAYR, G.: Palynology of the Permo-Carboniferous graben sediments below the eastern Molasse Basin, Austria

10:30-11:00	Coffee Break
11:00-11:15	UHL, D. & JASPER, A.: Wildfires in the Pennsylvanian and Permian of the Saar-Nahe Basin in SW-Germany – an overview of our current knowledge
11:15-11:30	TRÜMPER, S., GAITZSCH, B., SCHNEIDER, J.W., GÖTZE, J. & RÖSSLER, R.: Fossil driftwoods in fluvial red beds: sedimentological and palaeontological archive for tectonics, climate and palaeobiogeography in late Pennsylvanian Euramerica
C4. Permo-Carboniferous basins and environments from Gondwana and peri-Gondwana Chairpersons: A. Götz, A. Mory	
11:30-11:45	JIN, X., HUANG, H. & SHI, Y.: The Permo-Carboniferous of Gondwana affinity in Southwest China and their paleogeographic implications – an updated review
11:45-12:00	EL DESOUKY, H.: Carboniferous stratigraphy of the Gulf of Suez region, Egypt – an overview
12:00-12:15	HUANG, H., JIN, X., SHI, Y., WANG, H., ZHENG, J. & ZONG, P.: Early Permian fusulinid-bearing oolites from the Tengchong Block in western Yunnan, China: warming episode in eastern peri-Gondwana
12:30-12:45	Conference Photo
12:45-14:15	Lunch Break

Room A2

Keynote

14:15-14:55	GÖTZ, A.E.: Late Palaeozoic energy resources of Gondwana – archives of climate change that power the world
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Room A1

A4. Late Carboniferous to Triassic non-marine stratigraphy and biota

Chairpersons: S. Lucas, J. Schneider, F. Scholze

15:00-15:15	GOLUBEV, V.K.: Permian-Triassic Boundary stratigraphy of the East European platform. The state of the art: no evidence for a major temporal hiatus
15:15-15:30	SCHNEIDER, J.W., LUCAS, S.G., SCHOLZE, F., VOIGT, S., MARCHETTI, L., KLEIN, H., OPLUŠTIL, S., WERNEBURG, R., GOLUBEV, V.K., BARRICK, J.E., NEMYROVSKA, T., RONCHI, A., DAY, M.O., SILANTIEV, V.V., RÖSSLER, R., SABER, H., LINNEMANN, U., ZHARINOVA, V. & SHEN, S.: Correlation of Late Carboniferous, Permian and early Triassic continental biostratigraphy to the Standard Global Chronostratigraphic Scale
15:30-15:45	NAUMCHEVA, M.A. & GOLUBEV, V.K.: The changes of ostracode fauna at the Permian-Triassic Boundary of the East European Platform

Room A2

C4. Permo-Carboniferous basins and environments from Gondwana and peri-Gondwana

Chairpersons: A. Götz, A. Mory

15:00-15:15	JASPER, A., UHL, D., SPIEKERMANN, R. & BENICIO, J.R.W.: Permo-Carboniferous wildfires in Western Gondwana: news from the Paraná Basin, Brazil
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15:15-15:30	LOPES, G., FERNANDES, P., PEREIRA, Z., MENDES, M. & MARQUES, J.: Permian palynology of the Moatize-Minjova Coal Basin, Karoo Supergroup, Mozambique: present knowledge, challenges and future paths
15:45-16:15	Coffee Break
16:15-18:00	Poster Session
19:00-01:00	Conference Dinner

FRIDAY, AUGUST 2ND

9:15-10:15 Coffee & Poster Session

Room A2

Keynote

10:15-10:55 **MONTAÑEZ, I.P.:**
Understanding feedbacks between climate, pCO₂, and ecosystems in the late Paleozoic Earth System

Room A1

A4. Late Carboniferous to Triassic non-marine stratigraphy and biota
Chairpersons: A. Lucas, J.W. Schneider, F. Scholze

11:00-11:15 KNIGHT, J.A. & ÁLVAREZ-VÁZQUEZ, C.: The West European Regional Stratigraphic Framework for the upper Pennsylvanian – an appreciation of the initiatives of Robert H. WAGNER

11:15-11:30 BOYARINOVA, E.I., BULANOV, V.V. & GOLUBEV, V.K.: Significance of osteoderms for systematics of the Late Permian pareiasaurs of Eastern Europe

11:30-11:45 VOIGT, S., FISCHER, J., SCHINDLER, T., RINEHART, L.F. & PETER, E.: Carboniferous–Permian tetrapods of North-American affinity in the Saar-Nahe Basin, SW Germany

11:45-12:00 LUCAS, S.G.: Carboniferous and Permian tetrapod biostratigraphy and biochronology

Room A2

C5.2. Great Permian-Triassic Transition: biotic, environmental, and climate changes in ocean and on land
Chairpersons: S. Takahashi, D. Bond

11:00-11:15 BOND, D.P.G. WIGNALL, P.B. & GRASBY, S.E.: The Capitanian (Guadalupian, Middle Permian) mass extinction in the Boreal Realm: a global crisis driven by volcanism and anoxia

11:15-11:30 TAKAHASHI, S., KAIHO, K., YAMASAKI, S., TSUCHIYA, N., YOSHIDA, T., NAKADA, R., WATANABE, Y., TAKAHASHI, Y., OGAWA, Y. & KIMURA, K.: Potential impact of the pelagic deep-sea anoxia on the end-Permian mass extinction event

11:30-11:45 NOWAK, H., KUSTATSCHER, E. & ROGHI, G.: Palynology of the Permian-Triassic Boundary in the Southern Alps

11:45-12:00 LIU, F., PENG, H., BOMFLEUR, B., KERP, H. & SHEN, S.: Palynology and vegetation dynamics across the Permian-Triassic Boundary in southern Tibet

12:00-13:45 Lunch Break

Room A1

D1. Carboniferous and Permian palaeoceanography, plate tectonics, and the evolution of relief
Chairpersons: E. Grossman, Y. Sun, M. Joachimski

13:45-14:00 GROSSMAN, E.L. & JOACHIMSKI, M.M.: The oxygen isotope record for greenhouse-icehouse-greenhouse transitions in the Paleozoic

14:00-14:15 CHEN, J., MONTAÑEZ, I.P., BRAND, U., QI, Y., JIANG, G., HU, K., YAO, L., QIE, W., WANG, Q., SHEN, S. & WANG, X.: Carboniferous ⁸⁷Sr/⁸⁶Sr records of multiple biogenic components: a global compilation with implications for chemostratigraphy and continent weathering

14:15-14:30	KOCH, H., CHEW, D. & KAMBER, B.: The influence of diagenetic alteration on the strontium isotope values of marine carbonates: examples from the Irish Carboniferous
14:30-14:45	BECCALETTO, L., AVERBUCH, O. & IZART, A.: The Lorraine-Saar Basin (E France) in the frame of the Variscan Orogeny: structure and tectono-sedimentary evolution

Room A2

C5.2. Great Permian-Triassic Transition: biotic, environmental, and climate changes in ocean and on land Chairpersons: S. Takahashi, D. Bond

13:45-14:00	KOSSOVAYA, O., BOND, D., NESTELL, M. & FILIMONOVA, T.: Palaeontology, geochemistry and facies across the Middle Permian extinction in South Primorye (Far East Russia)
14:00-14:15	MISHRA, S., DUTTA, S., SINGH, V.P., MATHEWS, R.P. & KUMAR, S.: A new operculate acritarch from Southern India: implications to its origin and significance
14:15-14:30	GASTALDO, R.A., NEVELING, J., GEISSMAN, J.W. & LOOY, C.: What is the nature of the <i>Daptocephalus/Lystrosaurus</i> vertebrate biozone boundary in the Karoo Basin? An evaluation of the Bethel, Heldenmoed, and Donald 207 (Fairdale) farm records
14:30-14:45	WU, S., CHEN, Z.-Q., YU, J. & HARPER, D.A.T.: Burgess Shale-type sponges proliferating in an oxygen-deficient habitat following the end-Permian mass extinction

Room A2

14:45-15:30 Closing Ceremony

15:30-17:00 Farewell Drink

Poster presentations

On display in a designated area during the entire Conference

A1.1. The redefinition of the base of the Carboniferous period	
P-A1-1	FEIST, R., CORNEE, J.-J., CORRADINI, C., HARTENFELS, S., ARETZ, M. & GIRARD, C.: Transect from near- to offshore in Devonian-Carboniferous Boundary sections of the stratotype area (Montagne Noire, Southern France)
P-A1-2	HARTENFELS, S. & BECKER, R.T.: The Devonian/Carboniferous transition in the Rhenish Massif – Borkewehr, a potential GSSP section
P-A1-3	KAISER, S.I. & HUBMANN, B.: The Devonian-Carboniferous Boundary in the Graz Paleozoic (Austria)
P-A1-4	KAISER, S.I., RASSER, M.W. & HARTENFELS, S.: Pre-event conodont faunas – record of the early phase of the Hangenberg Crisis at the Devonian-Carboniferous Boundary at Geuser (Franconia, Germany)? – a preliminary report
P-A1-5	NIKOLAEVA, S.V., KULAGINA, E., MUSTAPAEVA, S., ALEKSEEV, A. & GATOVSKY, Y.: The Devonian-Carboniferous Boundary sections in the Berchogur Depression (Mugodzhary Mountains, Western Kazakhstan)
A1.2. The quest for a global Viséan-Serpukhovian Boundary	
P-A1-6	KULAGINA, E.: Late Viséan foraminiferal sequence in the Sikaza section, Western slope of the South Urals
P-A1-7	NIKOLAEVA, S.V., ALEKSEEV, A., KULAGINA, E., GATOVSKY, Y. & PONOMAREVA, G.: Progress in the study of Viséan-Serpukhovian Boundary sections in Russia
A2. Carboniferous and Permian multistratigraphy and correlations	
P-A2-1	DUB, S.A., MIZENS, G.A., KULESHOV, V.N., STEPANOVA, T.I., KUCHEVA, N.A., NIKOLAEVA, S.V., MELNICHUK, O.Y., KULAGINA, E.I. & PETROV, O.L.: The carbon and oxygen isotopic composition of the mid-Carboniferous boundary limestones on the eastern slope of the Southern and Middle Urals
P-A2-2	KULAGINA, E.: The Pennsylvanian Bashkirian Stage in the territory of the “Yangan-Tau” Geopark (Bashkortostan Republic, Russia)
P-A2-3	FILIMONOVA, T.V., ISAKOVA, T.N., SUNGATULLINA, G.M., SUNGATULLIN, R.K., CHERNYKH, V.V. & MIZENS, G.A.: The assemblages of foraminifers in the Sakmarian-Artinskian Boundary of the section Dalniy Tulkas, Southern Urals, Russia
P-A2-4	DANUKALOVA, M., KUZMICHEV, A., GANELIN, V., GATOVSKY, Y., KOSSOVAYA, O., ISAKOVA, T. & WEYER, D.: Lower Carboniferous deposits of the Kotelny Island (New Siberian Archipelago, Laptev Sea)
P-A2-5	FILIMONOVA, T.V., ISAKOVA, T.N., SUNGATULLINA, G.M., SUNGATULLIN, R.K., CHERNYKH, V.V. & MIZENS, G.A.: The assemblages of foraminifers in the Artinskian/Kungurian Boundary of the Mechetlino Quarry section (geopark Yangan-Tau), Southern Urals, Russia
A3. Late Carboniferous to early Triassic continental successions of Western Europe and Northern Africa	
P-A3-1	CHRISTOPHOUL, F., ARETZ, M., CHARDON, D., NARDIN, É. & SOARES, J.: Tectono/sedimentary and sediment source evolution of a Stephanian basin of the French Massif Central: the Decazeville Basin
P-A3-2	CLEMENT, G., CHRISTOPHOUL, F., ARETZ, M., NARDIN, É. & CHARDON, D.: The Stephanian Graissessac Basin: recording the collapse of the Variscan Orogen in southern France
P-A3-3	LLORET, J., RONCHI, A., LOPEZ-GOMEZ, J., DE LA HORRA, R., GREYTER, N., BARRENECHEA, J. & ARCHE, A.: Tectono-stratigraphic revision of Upper Carboniferous to Middle Triassic successions of Central-Eastern Pyrenees: new data and hypothesis
P-A3-4	NOWAK, H., KUSTATSCHER, E., FORTE, G. & ROGHI, G.: Permian macro- and microfloras of the Southern Alps
P-A3-5	SAILLOL, M., GOUYGOU, T., ARETZ, M. & CHRISTOPHOUL, F.: The Ségure Basin (Corbières, southern France): evolution of a Stephanian basin in the southern external zones of the Variscan Orogen

A4. Late Carboniferous to Triassic non-marine stratigraphy and biota

P-A4-1	LINDENBAUER, J., VOIGT, S., KAIN, P. & KRAWANJA-ORTNER, G.: Permian tetrapod footprints from the Gailtal Alps (Carinthia, Austria)
P-A4-2	SCHOLZE, F.: The fossil record of Late Permian conchostracans from Germany
P-A4-3	SILANTIEV, V.V. & URAZAEVA, M.N.: Permian non-marine bivalves of the Dvina-Mezen Basin (East European Platform, Russia)
P-A4-4	ZHARINOVA, V. & SILANTIEV, V.V.: The biostratigraphic significance of the Permian and Triassic conchostracans of the Kuznetsk Coal Basin (Western Siberia)
P-A4-5	ZOUICHA, A., SABER, H., MARCHETTI, L., VOIGT, S., RONCHI, A., SCHNEIDER, J.W. & EL ATTARI, A.: First record of Pennsylvanian–Permian trace fossils in the Jebilet Massif, Morocco

B1. Carboniferous and Permian marine biota: taxonomy, palaeoecology, palaeogeography

P-B1-1	DENAYER, J. & DEBOUT, L.: Palaeoecology of the Upper Tournaisian crinoidal limestones of S Belgium
P-B1-2	EL DESOUKY, H., KORA, M. & HERBIG, H.-G.: Reconsideration of a neglected fossil group – the tabulate coral fauna from the Viséan (Mississippian) of the Sinai Peninsula (Egypt)
P-B1-3	ERNST, A., KORA, M., HERBIG, H.-G., EL DESOUKY, H. & WYSE JACKSON, P.N.: Bryozoan faunas from the Carboniferous deposits of Egypt
P-B1-4	FRIEDEL, J.C., AMLER, M.R.W. & SEUSS, B.: Tales from a shale – taxonomy and analysis of life habits of bivalves from the Pennsylvanian Finis Shale (Virgilian) of North Central Texas
P-B1-5	GALEANA-MORAN, M.Á. & SOUR-TOVAR, F.: Richthofenioids brachiopods from the Middle Permian (Guadalupian) of Northeastern Mexico: taxonomical, biogeographical and environmental considerations
P-B1-6	MOTTEQUIN, B. & WEYER, D.: Tournaisian and Viséan (Carboniferous) brachiopods from neptunian dykes of the Harz Mountains (Germany)
P-B1-7	NESTELL, M.K. & NESTELL, G.P.: An early Capitanian (Middle Permian) foraminiferal connection between southern British Columbia, Canada and South Primorye, Russian Far East
P-B1-8	OHAR, V.: Tournaisian and Lower Viséan tabulate corals of the Donets Basin
P-B1-9	PAPST, J. & HERBIG, H.G.: A pelagic echinoderm microfauna from the Serpukhovian of the southern Cantabrian Mountains (Province León, NW Spain)
P-B1-10	TAKAHASHI, S., YAMAKITA, S. & SUZUKI, N.: Natural assemblages of the platform-type conodont in lowermost Triassic deep-sea claystone from northeastern Japan, with probable soft-tissue impressions
P-B1-11	TORRES-MARTINEZ, M.A. & NAVAS-PAREJO, P.: Permian biota from Chicomuselo, Chiapas, Mexico: latest advances and perspectives

B2. Carboniferous and Permian plants: taxonomy, palaeoecology, palaeogeography

P-B2-1	BÄUMER, R., BACKER, M. & KERP, H.: A highly diverse Flora from the Upper Permian of Shanxi, China
P-B2-2	DECOMBEIX, A.-L., GAVERIAUX, F. & GALTIER, J.: Diversity of Early Permian ginkgophyte-like foliage from the Lodève Basin, France
P-B2-3	FORAPONOVA, T.: First data on in-situ pollen from synangia of <i>Permotheca</i> type-species from the Middle Permian of the Russian Platform
P-B2-4	FORTE, G., BRANZ, R., NOWAK, H., PRETO, N. & KUSTATSCHER, E.: Morphometric range and $\delta^{13}\text{C}$ signature of the Lopingian (late Permian) conifers from the Bletterbach flora (Dolomites, NE Italy)
P-B2-5	GROSS, L., STEUR, H. & KERP, H.: <i>Caledonicratis caridum</i> from the upper Viséan of Scotland is not a hydrozoan but a seed fern
P-B2-6	HARTKOPF-FRÖDER, C., KERP, H. & VERREET, R.: “Spiral calamite axes” are no aberrant plant fossils but negative imprints of wire ropes: the case of a remarkable misinterpretation
P-B2-7	KERP, H. & RÖHR, I.: A coal ball flora from the Hauptflöz Seam (Namurian C, Yeadonian, Pennsylvanian) of the Ruhr district, Germany
P-B2-8	SCHULZE HOBELING, R., BLOMENKEMPER, P., KERP, H. & BOMFLEUR, B.: Arthropod-plant interactions from the late Permian Umm Irna Formation, Dead Sea region, Jordan

C1. Carboniferous and Permian marine environments	
P-C1-1	ENGELBRECHT, H.: Revision of geological units of the Carboniferous Farma Basin at the Southern Convergence Front of the westmediterranean Hercynides
P-C1-2	GONG, E., ZHANG, Y., HUANG, W. & GUAN, C.: Transition from level-bottom community to reef-building community in latest Carboniferous–earliest Permian, Southern Guizhou, China
P-C1-3	HALASZ, A.: Micromorphological interpretations of Permian playa mudflat interbeds
P-C1-4	HERBIG, H.-G., BLANKE, S. & AMLER, M.R.W.: Carbonate deposition on a drowning mogote karst in volcanic setting – the case of the Mississippian Erdbach Limestones (late Tournaisian–earliest Viséan, Rhenish Mountains, Germany)
P-C1-5	HOFFMANN, C. & GURSKY, H.-J.: Deep-sea turbidite channels in the Rhenohercynian Basin – a new facies model and the goniatite stratigraphy of the Kulm graywackes in the NW Harz Mountains (upper Viséan, central Germany)
P-C1-6	LARA-PEÑA, R.A. & NAVAS-PAREJO, P.: The Permian of northwestern Mexico
C2. Pennsylvanian and Permian paralic and non-marine environments of Central Europe	
P-C2-1	FISCHER, J., HARTKOPF-FRÖDER, C., LEIPNER, A., SCHNEIDER, J.W., WITTRY, J. & SOWIAK, M.: A highly diverse chondrichthyan egg capsule assemblage from the Late Pennsylvanian Piesberg Quarry, Northwest Germany
P-C2-2	GOSNY, O., HARTKOPF-FRÖDER, C. & KERP, H.: Arthropod cuticles from Pennsylvanian coal-bearing strata reveal insights into a diverse small-scale wetland fauna
P-C2-3	HARTKOPF-FRÖDER, C.: Palynology and palynofacies of a fluvio-lacustrine wet spot in the Permian Bolzano Volcanic Complex, northern Italy
P-C2-4	LEIPNER, A. & CHELLOUCHE, P.: A newly discovered lake deposit of Pennsylvanian age (upper Moscovian, Wesphalian D) from the Piesberg Quarry, Osnabrück, Northwestern Germany
P-C2-5	LITKE, R., ZIEGER, L., GRUBBE, L., MUHEIDAT, M., SCHWARZBAUER, J. & HARTKOPF-FRÖDER, C.: Depositional environment of the coal seam Katharina and the marine Katharina Horizon (Langsettian/Duckmantian, Pennsylvanian) in the Ruhr Basin, Germany: a palaeontological, organic petrological and organic geochemical study
P-C2-6	MEINHOLD, G., HARTKOPF-FRÖDER, C. & WEFELS, U.: Provenance of sandstones from Pennsylvanian coal-bearing strata of the Ruhr Basin, NW Germany: constraints from petrography, whole-rock geochemistry, and heavy minerals
C3. The Permian basins of Central Europe – the state of the art	
P-C3-1	DURKOWSKI, K., SOKALSKI, D., WOJEWODA, J. & DURKOWSKA, A.: Soft-Sediment Deformation Structures (SSD) in the transitional Terrigenous Series PZt (Zechstein/Lower Buntsandstein) in the Grodziec Syncline, Sudetes: process interpretation and regional implications
P-C3-2	SELEROWICZ, T., RACZYNSKI, P., CZECHOWSKI, F., DURKOWSKI, K. & SIDELKO, M.: Isotopic analysis of gaseous hydrocarbons in the Zechstein strata of Fore-Sudetic Monocline (SW Poland): implications on their source
C4. Permo-Carboniferous basins and environments from Gondwana and peri-Gondwana	
P-C4-1	GÖTZ, A.E., HANCOX, J., HORVATH, P., RUCKWIED, K., WEMMER, K. & WHEELER, A.: The Permian Whitehill event recorded in glauconitic sandstones (Karoo Basin, South Africa)
P-C4-2	IANNUZZI, R., GRIFFIS, N.P., MUNDIL, R., MONTAÑEZ, I.P., ISBELL, J.L., FEDORCHUK, N., VESELY, F. & YIN, Q.-Z.: Phytostratigraphic framework in southern Paraná Basin: reevaluation based on the new U-Pb single-zircon CA-TIMS ages and its consequences for biostratigraphic correlations in Western Gondwana
P-C4-3	SORCI, A., SPINA, A., CIRILLI, S., RETTORI, R. & GHORBANI, M.: Palaeoenvironmental and biostratigraphic evolution of Central Iran Basin during Guadalupian and Lopingian: a case from Ajabshir area
P-C4-4	TRÜMPER, S., GÖTZE, J. & RÖSSLER, R.: Silcrete-bearing red beds reveal the depositional environment and fossilisation of a Permian tropical forest from northern Gondwana

P-C4-5	WHEELER, A., ESTERLE, J.S. & GÖTZ, A.E.: Proximal-distal palaeoenvironmental patterns recorded by aquatic palynomorphs in the Galilee Basin, Australia
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C5.2. Great Permian-Triassic Transition: biotic, environmental, and climate changes in ocean and on land	
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P-C5-1	UENO, K., TAGAWA, R., MIYAHIGASHI, A., KAMATA, Y. & CHAROENTITIRAT, T.: Permian-Triassic Boundary and Lower Triassic carbonate succession in the Sukhothai Zone of mainland Thailand
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D1. Carboniferous and Permian palaeoceanography, plate tectonics, and the evolution of relief	
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P-D1-1	DUB, S.A., MIZENS, G.A., STEPANOVA, T.I., KUCHEVA, N.A. & KISELEVA, D.V.: Redox environments for the Lower Carboniferous limestones on the eastern slope of the Middle Urals
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