

17th Castle Meeting



Trakošćan - Croatia

**New Trends on Paleo, Rock and Environmental Magnetism**

28 AUGUST - 3 SEPTEMBER 2022

# Meeting

# Program & Schedule



### **Short course on the use of magnetic susceptibility in Earth Sciences**

Venue: Trakošćan, Croatia, August 26th – 28th 2022 (A pre-Castle meeting workshop)

The short course will cover the fundamentals and use of magnetic susceptibility in different areas of the Earth Sciences. The main focus is on 1) the theory of magnetic susceptibility in rocks, unconsolidated sediments and soils, 2) the use of magnetic susceptibility in environmental studies and 3) measurements and modelling of magnetic susceptibility and its anisotropy.

#### **Course instructors:**

- Bjarne Almqvist, Department of Earth Sciences, Uppsala University, Sweden
- Erwin Appel, Department of Geosciences, University of Tuebingen, Germany
- Andrea Biedermann, Institute of Geological Sciences, University of Bern, Switzerland
- Martin Chadima, AGICO, Czech Republic
- Stanislav Frančičković-Bilinski, Division for Marine and Environmental Research, Ruđer Bošković Institute, Croatia
- Frantisek Hrouda, AGICO/Charles University, Czech Republic
- Tadeusz Magiera, Institute of Environmental Engineering, Polish Academy of Sciences, Poland
- Eduard Petrovsky, Institute of Geophysics, Czech Academy of Sciences, Czech Republic

## Day 0 (August 26)

- Arrival to Zagreb airport or train station – transfer by bus to Trakošćan.

## Day 1 (August 27)

- Welcome – introduction to the short course 9.00-9.30

Dr. Stanislav Frančišković-Bilinski, Dr. Bjarne Almqvist

- Morning session (9.30-12.00, with 30 min coffee break)
- Introduction to magnetic susceptibility and its use in the Earth Sciences - theory behind magnetic susceptibility (Prof. Dr. Eduard Petrovsky)
- Topics in this lecture include the physical origin of magnetic susceptibility in minerals and rocks, temperature dependence of ferromagnetic and paramagnetic susceptibility, field and frequency dependence of magnetic susceptibility, and an introduction to measurements of magnetic susceptibility, with a brief description of available instrumentation.
- Lunch, 12.00-13.00
- Afternoon session (13.00-16.00, with 30 min coffee break)
- Magnetic susceptibility in environmental magnetism (Prof. Dr. Erwin Appel and Prof. Dr. Tadeusz Magiera). Topics in this session will include the use of magnetic susceptibility in paleoclimate and paleoenvironmental studies and environmental pollution studies. The session will cover interpretation of the magnetic susceptibility of environmental materials, with case study examples.

## Day 2 (August 28)

- Morning session (9.00-12.00, with 30 min coffee break)
- Applications of anisotropy of magnetic susceptibility (AMS) in rocks and unconsolidated sediments (Dr. Martin Chadima, Prof. Dr. Frantisek Hrouda).
- The morning session focuses on case studies and examples of interpretation of magnetic susceptibility and its anisotropy of rocks and unconsolidated sediments in different geological environments. Applications will cover for example the use of AMS to understand deformation in structural geology and tectonics studies, development of flow fabrics in magmatic rocks (plutons, dykes and sills), and depositional processes in sedimentary basins and for loess.
- Lunch, 12.00-13.00
- Afternoon session (13.00-16.00, with 30 min coffee break)
- Modelling magnetic anisotropy from single crystal properties and rock fabrics (Prof. Dr. Andrea Biedermann, Dr. Bjarne Almqvist). Topics in this session will cover magnetic susceptibility of single crystals and theory behind modelling methods to predict magnetic susceptibility and AMS in rocks. The second part of the afternoon will present different techniques to measure magnetic anisotropy, including high field methods and anisotropy of magnetic remanence.



17th Castle Meeting

# **PROGRAM SCHEDULE**

**SUNDAY - 28 AUG**      **EVENING****SOCIAL EVENT****WELCOME**

16:00

**General latest arrival time in Zagreb for those using the bus organised by  
Castle-meeting from Zagreb to the hotel "Trakošćan".**

19:00 20:00

Icebreaker and official opening Eduard &amp; Harald

20:00 open

Welcome dinner

**MONDAY - 29 AUG MORNING**

**SESSION I HISTORY OF THE EARTH'S MAGNETIC FIELD**

**Convenors:** *Nietzabitowska & Ucar*

<i>No</i>	<i>Start</i>	<i>End</i>	<i>Presenting author</i>	<i>Title</i>	<i>Authors</i>
<b>1</b>	8:30	8:50	Muxworthy Adrian	Testing the GAD hypothesis at high-latitudes: A palaeomagnetic and <sup>40</sup> Ar/ <sup>39</sup> Ar study of rocks from Eyjafjardardalur, northern Iceland.	Muxworthy, A.R., Supakulopas, R., Riishuus, M., Mac Nioacail, C., Barfod, D., Døssing, A.
<b>2</b>	8:50	9:10	Mahgoub Ahmed	Global insights into the behaviour of the Earth's magnetic field during 700-900 ka: Results from a new spherical harmonic field model.	Mahgoub, A.N., Korte, M., Panovska, S.
<b>3</b>	9:10	9:30	Vaes Bram	Calculating Global Apparent Polar Wander Since 320 Ma From Site-level Paleomagnetic Data.	Vaes, B., Gallo, L.C., Van Hinsbergen, D.J.J.
<b>4</b>	9:30	9:50	Sierra-Campos Pablo	Magnetobiochronology of the Nardués-Andurra section (Jaca-Pamplona basin, Central Pyrenees), initial results from a prospective Bartonian GSSP.	Sierra-Campos, P., Calvín, P., Bernaola, G., Larrasoaña, J.C., Payros, A., Pueyo, E.L., Montes, M., Luzón, A., Pérez-Landazabal, J.I., Mata, M.P., Bellido, E.
<b>5</b>	9:50	10:10	Rodriguez-Trejo Alejandro	Over two centuries of magnetic declination recorded on historical documents in Mexico.	Rodriguez-Trejo, Böhnell, H., Ibarra-Ortega, H.
<b>10:10</b>		<b>10:40</b>	<b>Coffee break</b>		
<b>6</b>	10:40	11:00	Dauchy-Tric (S) Louise	Relative paleointensity stack for the western equatorial Pacific ocean over the last 35 ka : inter-hemispheric correlation and climatic signature.	Dauchy-Tric, L., Carlut, J., Meynadier, L., Bassinot, F., Valet, J.-P.
<b>7</b>	11:00	11:20	Scheidt Stephanie	The high-resolution relative palaeointensity record from Lake Levinson-Lessing, northern Central Siberia.	Scheidt, S., Egli, R., Lenz, M., Lenz, M.M., Klug, M., Fedorov, G., Melles, M.
<b>8</b>	11:20	11:40	Polashenski Michael	Paleomagnetic Thellier-Coe Paleointensity Studies of the Glen Mountains Layered Complex Anorthosites Supporting an Ediacaran Inner Core Nucleation.	Polashenski, M.J., Tetto, F.J., Kodama, K.P., Tarduno, J.A.
<b>9</b>	11:40	12:00	Devienne José	Taenite in fast-cooled meteorites thermally stable over billion-years timescales.	Devienne, J.A.P.M., Berndt, T.A., Williams, W., Nagy, L.
<b>10</b>	12:00	12:20	Eid Baha	Exceptionally High Emplacement Rate of the Afar Mantle Plume Head.	Eid, B., Lhuillier, F., Gilder S.A., Pfänder J.A., Gebru, E.F., Aßbichler, D.
<b>11</b>	12:20	12:40	Font Eric	Magnetism of Speleothems: Advances and Perspectives.	Font, E., Sanchez-Moreno, E., Brás, A.R.M., dos Santos Melo, R.L., Ribeiro, J., Reboleira, A.S., Fonseca, P., Trindade, R., Lima, E., Feinberg, J., Edwards, L., Veiga-Pires, C., Marcel-Hilaire, C., Dimuccio, L., Cunha, L., Fu, R., Weiss, B., Pais, A.
<b>12:40</b>		<b>14:10</b>	<b>Lunch</b>		

MONDAY - 29 AUG							AFTERNOON		
SESSION		II					TECTONIC RECONSTRUCTIONS		
Convenors:		Font & Kdýr							
Nº	Start	End	Presenting author		Title	Authors			
12	14:10	14:30	Montheil (S)	Leny	What is really rotating in the northeastern Caribbean plate?	Montheil, L., Philippon, M., Van Hinsbergen, D.J.J., Camps, P., Cornée, J.-J. Poidras, T., Vaes, B., Münch, P.			
13	14:30	14:50	Villalaín	Juan	A new attempt to define the chronology of Iberian rotation during the Cretaceous.	Villalaín, J.J., Yenes, L., Calvín, P., Marcén, M., Casas, A.M., Ruiz, V.C., Román-Verdiel, T., Bógalo, M.F., Torres-López, S.			
14	14:50	15:10	Niezabitowska	Dominika	Terranes paleoposition and chemical evolution of sedimentary basin materials, and the effects on measurable magnetic properties - the Holy Cross Mountains case.	Niezabitowska, D.K., Szaniawski, R.			
15	15:10	15:30	Yenes-Pérez	Laura	Paleomagnetic, structural and magnetic fabric study of the Anemzi syncline (Central High Atlas). Towards a 3D palinspastic reconstruction.	Yenes, L., Calvín, P., Villalaín, J.J., Casas-Saínz, A.M., Jiménez-Sanz, A.			
15:30		16:00		Coffee break					
16	16:00	16:20	Elbra	Tiiu	Tithonian-Berriasian transition in the Silesian Unit, Pieniny Klippen Belt and Magura Group of nappes based on rock- and paleomagnetic analyses.	Elbra, T., Pruner, P., Kdýr, Š., Schnabl, P., Koukliková L., Reháková, D., Bubík, M., Skupien, P.			
17	16:20	16:40	Tonti-Filippini (S)	Justin	Vector Unmixing of Multicomponent Palaeomagnetic Data.	Tonti-Filippini, J.A.D., Gilder, S.A.			
POSTERS A		POSTER SESSION A		FLASH PRESENTATIONS + VIEWING		MONDAY - 29 AUG		AFTERNOON	
Convenors:		De Boer & Leone							
P070	16:50	16:52	Camps (Dubois S)	Pierre	The secular variation of the Earth's magnetic field over the last millennia: experimental study of an African speleothem.	Dubois, M., Camps, P., Bentaleb, I.			
P072	16:52	16:54	Eid	Baha	Do changes in geomagnetic secular variation, dipole moment and polarity reversal frequency correlate over the past 155 Myr?	Eid, B., Lhuillier, F., Sherbakov, V.P., Sherbakova, V.V.			
P085	16:54	16:56	Rodriguez-Trejo	Alejandro	Introducing the Latin American paleomagnetic and archaeomagnetic online database (LAPOD).	Rodriguez-Trejo, Böhnel, H., Ibarra-Ortega, H.			
P086	16:56	16:58	Sánchez-Moreno	Elisa	A pseudo-Thellier relative paleointensity record in a stalagmite from the Soprador do Carvalho cave (central Portugal).	Sánchez-Moreno, E.M., Font, E., Pavón-Carrasco, F.J., Dimuccio, L.A., Cunha, L.			
P094	16:58	17:00	De Boer	Rosa	Paleointensity estimates of the Middle Devonian obtained from German pillow lavas.	de Boer, R.A., van der Boon, A., Königshof, P., de Groot, L.V.			
P096	17:00	17:02	Gerritsen	Dieke	Influence of Data Filters on the Position and Precision of Paleomagnetic Poles: What Is the Optimal Sampling Strategy?	Gerritsen, D., Vaes, B., Van Hinsbergen, D.J.J.			
P105	17:02	17:04	Pavón-Carrasco	Francisco	Reconstructing the past geomagnetic field in Europe: the SCHA.DIF.4k model.	Pavón-Carrasco, F.J., Campuzano, S.A., Rivero-Montero, M., Molina-Cardín, A., Gómez-Paccard, M., Osete, M.L.			

MONDAY - 29 AUG AFTERNOON						
<b>P107</b>	17:04	17:06	Savranskaia	Tatiana	Assessment of different components of cosmogenic beryllium records.	Savranskaia, T., Korte, M., Panovska, S., Egli, R.
<b>P006</b>	17:06	17:08	Böhnel	Harald	NGOD: Next generation orienting device.	Böhnel, H., Rodríguez-Trejo, A., Ibarra-Ortega, H.
<b>P066</b>	17:08	17:10	Calvín	Pablo	Progressive widespread remagnetizations. Paleomagnetic and rock magnetic contains in the turbiditic Jaca Basin (Western Pyrenees).	Calvín, P., Pueyo, E.L., Izquierdo-Llavall E., Larrasoaña, J.C., Sierra, P., Rodríguez-Pintó, A., Egli, R.
<b>P075</b>	17:10	17:12	Kdýr (S)	Šimon	Paleomagnetic and rock magnetic investigations of cave sediments in Lipiška Jama (Classical Karst, Slovenia).	Kdýr, Š., Zupan-Hajna, N., Švara, A., Pruner, P., Bosák, P.
<b>P088</b>	17:12	17:14	Scheidt	Stephanie	The re-established Rock and Palaeomagnetic Laboratory at the University of Cologne.	Scheidt, S., Melles, M.
<b>P091</b>	17:14	17:16	Ucar (S)	Hakan	Preliminary paleomagnetic results from the Most Basin, Czech Republic.	Ucar, H., Kletetschka, G., Schnabl, P., Mach, K.
<b>P092</b>	17:16	17:18	Antonio	Paul	First Neoproterozoic key pole for Amazonia: implications for the assembly of Rodinia.	Antonio, P.Y.J., Trindade, R., Heuret, A., Lasmar F., Lana, C., Casanova A., Proeitti, A., Martínez Dopico, C.I., Théveniaut, H., Ibanez-Mejia, M.
<b>P049</b>	17:18	17:20	Schnabl	Petr	New archaeomagnetic directional data from the Czech Republic.	Schnabl, P., Grison, H., Aidona, E., Kdýr, Š., Kubišová, L.
<b>P071</b>	17:20	17:22	Ech-chakrouni	Souad	Archaeomagnetic study of bell-casting workshop at the Belfry of Gembloux in Southern Belgium.	Ech-chakrouni, S.
<b>P073</b>	17:22	17:24	Jordanova	Neli	First determinations of ancient firing temperatures of Early Neolithic pottery from a multilevel settlement near Varbitsa town (Bulgaria) using mineral magnetic methods.	Georgieva, V., Jordanova, N., Kostadinova-Avramova, M.
<b>P076</b>	17:24	17:26	Klanica	Radek	Assessing the volume of defensive structures for architectural energetics analysis using 3D electrical resistivity tomography.	Klanica, R., Grison, H., Šteffl, J., Beránek, R.
<b>P098</b>	17:26	17:28	Hahn	Sandra	Searching for a lost Achaemenid Palace - Magnetometer prospection, soil magnetism and pXRF analysis in Gumbati (Georgia) to decode a magnetic "ghost feature"?	Hahn, E.S., Schauer, M., Fassbinder, J.W.E.
<b>P099</b>	17:28	17:30	Ibarra-Ortega (S)	Hector	Paleomagnetic study from Apan-Tecomulco, Hidalgo, Mexico: Evidence of a geomagnetic excursion record.	Ibarra-Ortega, H., Böhnel, H., Rodríguez-Trejo, A.



		<b>MONDAY - 29 AUG</b>		<b>AFTERNOON</b>	
<b>P005</b>	17:30 17:32	Biedermann	Andrea	Interactions between ferrofluid and rock, and their influence on impregnation behaviour and interpretation of magnetic pore fabrics.	Biedermann, A.R., Hartmeier, P., Prieto Casallas, M.A., Zhou, Y.
<b>P090</b>	17:32 17:34	Shajahan	Rasia	Anisotropy of magnetic susceptibility (AMS) analysis of Mount Calanna dykes swarm of Mount Etna, Italy: Implication of its emplacement mechanism.	Shajahan, R., Zanella, E., Mana, S., Harris, A., Van Wyk de Vries, B.
<b>P103</b>	17:34 17:36	Kusbach	Vladimir	Analog modelling: shear strain-AMS relationship.	Kusbach, V.K., Roxerová, Z., Machek, M.
<b>P104</b>	17:36 17:38	Olšanská	Irena	Application of multiple rock-magnetic methods (ipAMS, opAMS, AARM) to examine ignimbrite petrofabrics of the late-Variscan Tharandt Wald Caldera (Bohemian Massif).	Olšanská, I., Tomek, F., Chadima, M.
<b>P113</b>	17:38 17:40	Zhou (S)	Yi	Comparing magnetic pore fabrics, X-ray tomography-derived pore fabrics and permeability anisotropy tensors in homogeneous uniaxially symmetric synthetic samples and heterogeneous sedimentary rocks.	Zhou, Y., Foubert, A., Lanari, P., Biedermann, A.R.
	17:40 19:30	Posters A : viewing author presence			
<b>19:30</b>		<b>Dinner</b>			

## TUESDAY - 30 AUG MORNING

SESSION		III RECORDS OF CLIMATE CHANGE				
<b>Convenors:</b>		<b>Spassov &amp; Georgieva</b>				
<i>No</i>	<i>Start</i>	<i>End</i>	<i>Presenting author</i>		<i>Title</i>	<i>Authors</i>
18	8:30	8:50	Egli	Ramon	Key signatures of magnetofossils: recent results.	Egli, R.
19	8:50	9:10	De Souza	Ana	Magnetotactic bacteria as a proxy of paleoproductivity at the Eocene-Oligocene transition: Paleoenvironmental evidences from ODP Site 709C, Leg 115.	De Souza, A.P.M., Florindo, F., Srivastava, P., Jovane, L.
20	9:10	9:30	Palcu	Dan	Towards a Rock-magnetic characterization of redox change in anomalohaline environments.	Palcu, D.V., Krijgsman, W., Srivastava, P., Dekkers, M.J.
21	9:30	9:50	Turney	Jack	The greigite proxy: constraining formation mechanisms using thermodynamic modelling.	Turney, J., Weiss, D., Muxworthy, A.R., Fraser, A.
22	9:50	10:10	Maron	Matteo	Increased weathering and anoxic conditions in the late Norian-early Rhaetian interval from rock magnetism and geochemistry of Pignola-Abriola (Italy) and Kiritihere (New Zealand) sections.	Maron, M., Onoue, T., Satolli, S., Soda, K., Sato, H., Muttoni, G., Rigo, M.
<b>10:10 10:40</b>		<b>Coffee break</b>				
23	10:40	11:00	Srivastava	Priyeshu	Paleoclimatic changes during the late Maastrichtian and early Danian in South Atlantic.	Srivastava, P., Palcu, D.V., Jovane, L., Chen, J., Florindo, F., Sial, A.N., Punekar, J., Rawat, S., Damaceno, M., Tagliaro, G.
24	11:00	11:20	Jordanova	Daniela	Loess-paleosol sequence from central north Bulgaria as a unique detailed archive of the Middle ? Late Pleistocene environmental change in SE Europe.	Jordanova, D., Jordanova, N., Laag, C., Lagroix, F., Georgieva, B., Ishlyanski, D., Guyodo, Y.
25	11:20	11:40	Declercq	Ynse	A magnetic approach to reconstructing the mineral dust flux in the Chinese Loess Plateau during the Mid-Pleistocene Transition (MPT).	Declercq, Y., Spassov, S.
26	11:40	12:00	Georgieva (S)	Bozhurka	Mineral magnetism and paleomagnetism of a Holocene alluvial soil as tools for robust paleoenvironmental reconstructions.	Georgieva, B., Jordanova, D., Jordanova, N., Lagroix, F., Guyodo, Y.
27	12:00	12:20	Teodorski (S)	Artur	Depositional conditions of tills based on magnetic fabrics analysis in the Dębe site (central Poland).	Teodorski, A.
<b>12:20 14:00</b>		<b>Lunch</b>				

TUESDAY - 30 AUG							AFTERNOON	
SESSION		IV		RECORDS OF HUMAN ACTIVITY				
Convenors:		Sakan & Brás						
Nº	Start	End	Presenting author		Title	Authors		
28	14:00	14:30	Winkler	Aldo	Beyond PM10 concentration levels: A (bio)magnetic monitoring approach for assessing and mitigating the impact of vehicular emissions in urban and cultural heritage sites. (Invited)	Winkler, A., Amoroso, A., Contardo, T., Lapenta, V., Loppi, S., Marchegiani, G., Sgamellotti, A.		
29	14:30	14:50	Letaïef (S)	Sarah	Magnetic biomonitoring of traffic-related particulate matter deposition: The effect of the earth-berm noise barriers along a motorway.	Letaïef, S., Camps, P., Bosch, D., Poidras, T., Nicol, P., Bruguier, O.		
30	14:50	15:10	Magiera	Tadeusz	Identification of technogenic magnetic particles from different pollution sources by magnetic proxies.	Magiera, T., Górka-Kostrubiec, B., Rachwał, M., Szumiata, T.		
15:10		15:40		Coffee break				
31	15:40	16:00	Aidona	Elina	Insights into the occurrence and characteristics of iron-bearing magnetic phases of playground sand.	Bourvilla, A., Aidona, E., Papadopoulou, L., Sarafidis, C., Kantiranis, N.		
32	16:00	16:20	Petrovský	Eduard	Palaeoenvironmental changes and anthropogenic impact recorded in floodplain sediments: A case study from the lower Morava River Basin (Czech Republic).	Kadlec, J., Světlík, I., Rybníček, M., Kolář, T., Petrovský, E., Grison, H.		
POSTERS B		POSTER SESSION B		FLASH PRESENTATIONS		TUESDAY - 30 AUG		AFTERNOON
Convenors:		Petrovský & Dauchy-Tric					(Time for viewing foreseen on 01 SEP afternoon)	
P065	16:30	16:32	Brás (S)	Ana	Linking the rock magnetic properties to environmental proxies of a dirty speleothem from Portugal.	Brás, A.R.M., Font, E., Reboleira, A.S., Fonseca, P.		
P068	16:32	16:34	Chadima	Martin	Rock magnetic study of the Dejvice loess/paleosol sequence (Prague, Czech Republic).	Chadima, M., Žatecká, M., Kadlec, J.		
P077	16:34	16:36	Leone (S)	Stephanie	Changing sediment supply during Glacial-Interglacial intervals in the North Atlantic revealed by particle size characterization and environmental magnetism.	Leone, S., Palcu, D.V., Bin Hassan, M., Srivastava, P., Muraszko, J., Jovane, L.		
P080	16:36	16:38	Paar	Dalibor	Perspectives on Magnetic Research of sediments of Northern Velebit deep caves, Dinaric karst, Croatia.	Marinić, M., Paar, D., Frančičković-Bilinski, S.		
P102	16:38	16:40	Kulakova	Ekaterina	New rock-magnetic data on Quaternary loess-paleosol sites of southern Tajikistan.	Kulakova, E., Meshcheriakova, O.		
P112	16:40	16:42	van Hinsbergen	Douwe	Paleo[X].org: an online toolset for paleomagnetism, paleoclimatology, and paleogeography.	van Hinsbergen, D.J.J., Vaes, B., Boschman, L.		
P031	16:42	16:44	Magiera	Tadeusz	ISO 21226: 2019 - "Soil quality - Guideline for the screening of soil polluted with toxic elements using soil magnetometry".	Magiera, T.		

		<b>TUESDAY - 30 AUG</b>		<b>AFTERNOON</b>	
<b>P046</b>	16:44 16:46	Sakan	Sanja	Magnetic properties as indicators of toxic elements pollution in surface sediments of the Vlasina River (Serbia) and Kupa River (Croatia).	Sakan, S., Frančišković-Bilinski, S., Đorđević, D., Popović, A., Mihajlidi-Zelić, A., Škrivanj, S., Bilinski, H.
<b>P074</b>	16:46 16:48	Ishlyamski (S)	Daniel	Evaluation of anthropogenic pollution degree at children's playgrounds in the city of Sofia using mineral magnetism.	Ishlyamski, D., Georgieva, B., Jordanova, N.
<b>P078</b>	16:48 16:50	Letaïef (S)	Sarah	Is the magnetic characterization of traffic-related PM sources able to determine the contribution of each source in the total magnetic signal released by traffic?	Letaïef, S., Carvallo, C., Franke, C., Isambert, A., Camps, P., Nicol, P.
<b>P081</b>	16:50 16:52	Melo (S)	Rui	Magnetic and mercury fingerprint of burnt soils from Portugal.	Melo, R., Font, E., Ribeiro, J.
<b>P082</b>	16:52 16:54	Menshov	Oleksandr	Man-made pollution assessment in Lviv (Ukraine) by soil magnetic analyzes.	Menshov, O., Kruglov, O., Kuderavets, R., Andreeva, O.
<b>P084</b>	16:54 16:56	Peco	Josip	Magnetic susceptibility of soil from Seget Gornji (South Croatia) under different heating exposure: wildfire vs. laboratory furnace.	Peco, J., Fajković, H., Frančišković-Bilinski, S.
<b>P111</b>	16:56 16:58	Dudzisz	Katarzyna	Iron oxide transformations in Technosols developed from thermal power station ash.	Uzarowicz, Ł., Górká-Kostrubiec, B., Dudzisz, K.
<b>P063</b>	16:58 17:00	Ahanin	Nastaran	Preliminary palaeomagnetic results of Late Ordovician Carbonates, south-central Sweden.	Ahanin, N., Gilder, S.A.
<b>P067</b>	17:00 17:02	Camps	Pierre	A low cost and fast system for measuring materials with Curie temperatures up to about 1100°C.	Camps, P., Poidras, T., Nicol, P., Letaïef, S.
<b>P069</b>	17:02 17:04	Church	Nathan	Three-dimensional morphology of magnetite-ulvospinel exsolution: controlling factors and implications for magnetic properties.	Church, N.S., Nikolaisen, E., Béguin, A., McEncroe, S.
<b>P083</b>	17:04 17:06	Pastore	Zeudia	Magnetic properties of deeply serpentized peridotites from the Monte Maggiore massif, Northern Corsica.	Pastore, Z., Church, N.S., Uehara, M., Gattacceca, J., Vitale Brovarone, A., Zanella, E.
<b>P100</b>	17:06 17:08	Kletetschka	Gunther	Impact craters have their magnetizations reduced by impact plasma shielding.	Kletetschka, G., Takac, M., Karimi, K., Kavkova, R., Ucar, H.
<b>P101</b>	17:08 17:10	Kontny	Agnes	Magnetic characterization of pore space in sandstone using ferrofluid.	Kontny, A., Busch, B., Schenk, J.
<b>P048</b>	17:10 17:12	Scheidt	Stephanie	Palaeomagnetic dating of the 'Deckenschotter' in northern Switzerland and southern Germany.	Scheidt, S., Biedermann, A.R., Deplazes, G.
<b>P106</b>	17:12 17:14	Pratap Singh	Sarvendra	Magnetostratigraphy and palaeoenvironmental implications from the Deccan Volcano-Sedimentary succession, Dhar district, Madhya Pradesh, central India.	Pratap Singh, S., Arif, M., Kumar Singh, A., Mishra, S., Vir Kapoor, V., Prasad, V.
<b>18:00 19:30</b>		<b>Trakošćan castle sightseeing</b>			
<b>19:30</b>		<b>Dinner</b>			

## WEDNESDAY - 31 AUG MORNING

SESSION		V		ANISOTROPY		
<b>Conveners:</b>		<b>Appel &amp; Letaief</b>				
No	Start	End	Presenting author		Title	Authors
33	8:30	9:00	Machek	Matej	Relevance of quantitative microstructural analysis for AMS interpretation. (Invited)	Machek, M., Roxerová, Z., Kusbach, V.K., Závada, P., Silva, P.F., Racek, M.
34	9:00	9:20	Biedermann	Andrea	Numerical and experimental study on magnetic pore fabrics.	Biedermann, A.R., Zhou, Y., Pugnetti, M., Foubert, A.
35	9:20	9:40	Ostermeier	Felix	Error variance analysis of different measurement schemes to improve anisotropy measurements.	Ostermeier, F.K., Gilder, S.A., Wack, M.R., Jezek, J., Finn, D.
36	9:40	10:00	Chadima	Martin	Anisoft: Major updates of long-popular magnetic anisotropy processing software.	Chadima, M.
<b>10:00</b>		<b>10:30</b>	<b>Coffee break</b>			
37	10:30	10:50	Hrouda	František	Fabric of pyrrhotite mineralization in contact area between Neo-Proterozoic slates and Varican granitoids revealed by the anisotropy of out-of-phase magnetic susceptibility (Central Bohemian Massif).	Hrouda, F., Franěk, J., Hanák, J., Chlupáčová, M., Švagera, O.
38	10:50	11:10	Raposo	Irene	Anisotropy of Anhyseretic Remanent magnetization applied to Serra do Mar dike swarm (SE Brazil): implications for its emplacement and the relationship with Gondwana break-up.	Raposo, M.I.B.

## WEDNESDAY - 31 AUG AFTERNOON

SOCIAL EVENT		CONFERENCE EXCURSION	
12:00	Departure conference excursion		
	Lunch on the way / lunch bag		
	Sightseeing of Varaždin		
	Visit to Gaveznicna - Kameni vrh fossil volcano		
	Dinner at Zlatne gorice vineyards		

## THURSDAY - 01 SEP MORNING

SESSION		VI		ARCHAEOMAGNETISM		
<i>Conveners: Böhnel / Camps &amp; Wang</i>						
No	Start	End	Presenting author		Title	Authors
39	8:30	9:00	Jordanova	Neli	Fire record in archaeological clay remains and soils – mechanisms and expression through mineral and rock magnetism. (Invited)	Jordanova, N.
40	9:00	9:20	Bonilla-Alba	Raquel	First Full Vector archaeomagnetic data for the last millennia from Central Asia.	Bonilla-Alba, R., Gómez-Paccard M., Beamud E., Pavón-Carrasco, F.J., Martínez-Ferreras V, Gurt-Esparraguera, J.M., Ariño-Gil, E., Martín-Hernández, F., del Rio J., Osete, M.L.
41	9:20	9:40	Bussone (S)	Romain	A new application for archaeomagnetic dating method on the mining firesettings. The directionnal record of the oldest southern Alps copper mine (Mines de Roua, France).	Bussone, R., Camps, P., Peyret, M., Suméra, F., Lemercier, O., Dubois, M.
42	9:40	10:00	Spasov	Simo	Yet another approach for establishing palaeosecular variation reference curves for archaeomagnetic dating.	Spasov, S., Aidona, E.
10:00		10:30		Coffee break		
43	10:30	10:50	Rivera	Pablo	Spikes in the Geomagnetic Field: A case study of the Levantine Iron Age Anomaly.	Rivera, P., Pavón-Carrasco, F.J., Osete, M.L.
44	10:50	11:10	Vernet	Eva	Archeomagnetic results from burnt sediments in a medieval archeological site (Caleruega, Burgos, North-Central Spain).	Vernet, E., Carrancho, Á., Calvo-Rathert, M., Crespo, M., Jorge, S., Bógalo, M.F.
45	11:10	11:30	Gómez Paccard	Miriam	Deciphering the evolution of the South Atlantic Anomaly over the last 2000 years: New archaeointensities from central South America.	Gómez Paccard, M., Pavón-Carrasco, F.J., Palencia-Ortas, A., Chauvin, A., Rivero-Montero, M., Archaeological team
46	11:30	11:50	Grison	Hana	Geoelectric, magnetic susceptibility, and geochemical survey as a tool to clarify the origin of Bronze Age water reservoirs at the Štěpánov hillfort, Czechia.	Grison, H., Klanica, R., Stejskalová, Š., Šteffl, J.
12:00		14:00		Lunch		

<b>THURSDAY - 01 SEP AFTERNOON</b>						
<b>SESSION</b>		<b>VII ROCK MAGNETISM - RECENT ADVANCES AND CHALLENGES</b>				
<b>Conveners:</b>		<b>Egli &amp; Zhou</b>				
<b>No</b>	<b>Start</b>	<b>End</b>	<b>Presenting author</b>		<b>Title</b>	<b>Authors</b>
47	14:00	14:20	Baker	Evelyn	Using Preisach theory to model chemical remanent magnetisation acquisition and making comparisons to thermoremanent magnetisation acquisition.	Baker, E.B., Muxworthy, A.R., Heslop, D.
48	14:20	14:40	Dudzisz	Katarzyna	Temperature-dependent in- and out-of-phase magnetic susceptibility as an indicator of thermal histories of different pyroclastic deposits.	Dudzisz, K., Kontny, A., Alva-Valdivia, L.
49	14:40	15:00	Appel	Erwin	Reversible irreversible effect in thermomagnetic curves of magnetic susceptibility.	Appel, E., Zhang, Q.
50	15:00	15:20	Béguin	Annemarieke	Demagnetization energy and internal stress in natural magnetite bearing samples from temperature-dependent hysteresis measurements.	Béguin, A., Fabian, K., Church, N.S., McEnroe, S.A.
51	15:20	15:40	Kryczka	Przemysław	Mag-Instruments - New Research Tools for Paleo-, Rock, and Environmental Magnetism.	Kryczka, P., Roud, S.C.
<b>15:40 16:10</b>		<b>Coffee break</b>				
52	16:10	16:30	Robustelli Test	Claudio	Unveiling the influence of lithological heterogeneities on the magnetic fabric record of faulting processes: Insights into para- and ferromagnetic fabrics in megathrust shear zones.	Robustelli Test, C., Biedermann, A.R., Zanella, E., Festa, A.
53	16:30	16:50	Krijgsman	Wout	Greigite in the changing seas of Central Eurasia.	Krijgsman, W., Dekkers, M.J., Palcu, D.V.
54	16:50	17:10	Mendes	Bruno	Peak Ring Magnetism of the Chicxulub Impact Crater derived from Rock and Mineral Magnetic Properties of the IODP-ICDP drill core M0077A.	Mendes, B.D.L., Kontny, A., Kuipers, B.W.M., Dekkers, M.J.
55	17:10	17:30	Sleptsova	Iuliia	Remanent magnetization in Bunte Breccia from the Ries impact structure, Germany.	Sleptsova, I.V., Gilder, S.A., Dellefant, F., Trepmann, C.A., Pohl, J.
56	17:30	17:50	Cowan	Alison	Magnetic recording of Earth's history: 3D nano-scale characterisation of natural basalts.	Cowan, A., Muxworthy, A., Einsle, J., Williams, W.
<b>POSTERS B</b>		<b>18:00 19:30</b>		<b>POSTER SESSION B</b>		<b>VIEWING THURSDAY - 01 SEP AFTERNOON</b>
				Poster B: viewing and author presence		
		<b>19:30</b>		<b>Dinner</b>		
		<b>21:00</b>		<b>Concert or some other cultural event at Trakošćan after dinner</b>		

## FRIDAY - 02 SEP MORNING

### SESSION VIII MAGNETOSTRATIGRAPHY

**Conveners: Scheidt & Tonti-Filippini**

№	Start	End	Presenting author	Title	Authors
57	8:30	8:50	Pruner Petr	Magneto- and biostratigraphy of the J/K boundary at Golubac, Serbia - preliminary data correlation to magnetostratigraphy.	Pruner, P., Rabranovic, D., Kdýr, Š., Elbra, T., Schnabl, P., Kouklíková, L., Svobodová, A., Reháková, D., Vašíček, Z., Skupien, P.
58	8:50	9:10	Schnabl Petr	Magnetostratigraphy and biostratigraphy of the Berrias section.	Reháková, D., Svobodová, A., Mikuláš, R., Kouklíková, L., Wimbledon, W.A.P., Pruner, P.
59	9:10	9:30	Wang (S) Wanzhang	An integrated, RPI-based magnetostratigraphy of five abyssal Plio-Pleistocene sediment cores from the Central North Pacific.	Wang, W., Von Dobeneck, T., Frederichs, T., Zhang, Y., Lembke-Jene, L., Tiedemann, R., Winklhofer, M., Nürnberg, D.
60	9:30	9:50	Beyer Claus	Dating Quaternary sediments by the use of magnetostratigraphy.	Beyer, C.
<b>9:50 10:20</b>		<b>Coffee break</b>			
61	10:20	10:40	Satolli Sara	Preliminary paleomagnetic results from the Fucino lacustrine basin (Italy): Implications for the tectonic evolution of the Central Apennines.	Satolli, S., Macrì, P., Florindo, F., Boncio, P., Cavinato, G.P., Galli, P., Giaccio, B., Iezzi, F., Mazzini, I., Messina, P., Monaco, L., Notaro, A., Testa, A.
62	10:40	11:00	Simón-Muzás Ana	Contributions of AMS and paleomagnetism to the study of volcanoclastic systems: example of the Late-Carboniferous-Permian Cadí basin (Central Pyrenees).	Simón-Muzás, A., Casas-Sainz, A.M., Soto, R., Gisbert, J., Román-Berdiel, T., Oliva-Urcia, B., Pueyo, E., Beamud, E., Calvín, P., Villalaín, J.J.
63	11:00	11:20	Juarez Erick	Paleomagnetism of Late Quaternary Pico de Orizaba volcano, Mexico.	Sieron, K., Martínez-Izaguirre, E., Böhnell, H., Juarez, E.
64	11:20	11:40	Böhnel Harald	Eruption history of El Metate volcano from paleomagnetic data, v. 3.0.	Böhnel, H., Salinas, S., Rodríguez-Trejo, A.
	11:45	12:00	Böhnel Harald	Presentation Next Castle Meeting	
<b>12:00 13:00</b>		<b>Lunch</b>			

## FRIDAY - 02 SEP AFTERNOON

### SOCIAL EVENT GOOD BYE ++

13:30	Visit of the Krapina Neanderthal museum
	Sightseeing in the Zagorje region - Veliki Tabor castle
	Farewell Dinner including IAGA student presentation awards at vineyard Vuglec Breg



**SATURDAY - 03 SEP MORNING**

**DEPARTURE**

**before 8:00**

Hotel check-out

**8:00**

General departure hour from Trakošćan hotel for those using the bus.



## 17th Castle Meeting

### PROGRAM FOR ACCOMPANYING PERSONS

#### **SUNDAY:**

Arrival to Trakošćan

19 Icebreaker and dinner (together with Castle participants)

#### **MONDAY:**

10 – 12:30 Walk around Trakošćan Lake

#### **TUESDAY:**

9 – 12:30 Excursion to Lepoglava – visit to museum and workshop on world famous Lepoglava lace handwork

17:30 – 19:30 Trakošćan castle sightseeing (together with Castle participants)

#### **WEDNESDAY:**

12 – 22 Conference excursion, Sightseeing of Varaždin, Visit to Gaveznica - Kameni vrh fossil volcano,

Dinner at Zlatne gorice vineyards (together with Castle participants)

#### **THURSDAY:**

9:30 – 12:30 Excursion to Ravna gora mountain

21 Concert or some other cultural event at Trakošćan (together with Castle participants)

#### **FRIDAY:**

13:30 – 22 Excursion to Zagorje region, with visit to Krapina Neanderthal museum and Veliki Tabor castle, farewell dinner at Vuglec breg (together with Castle participants)