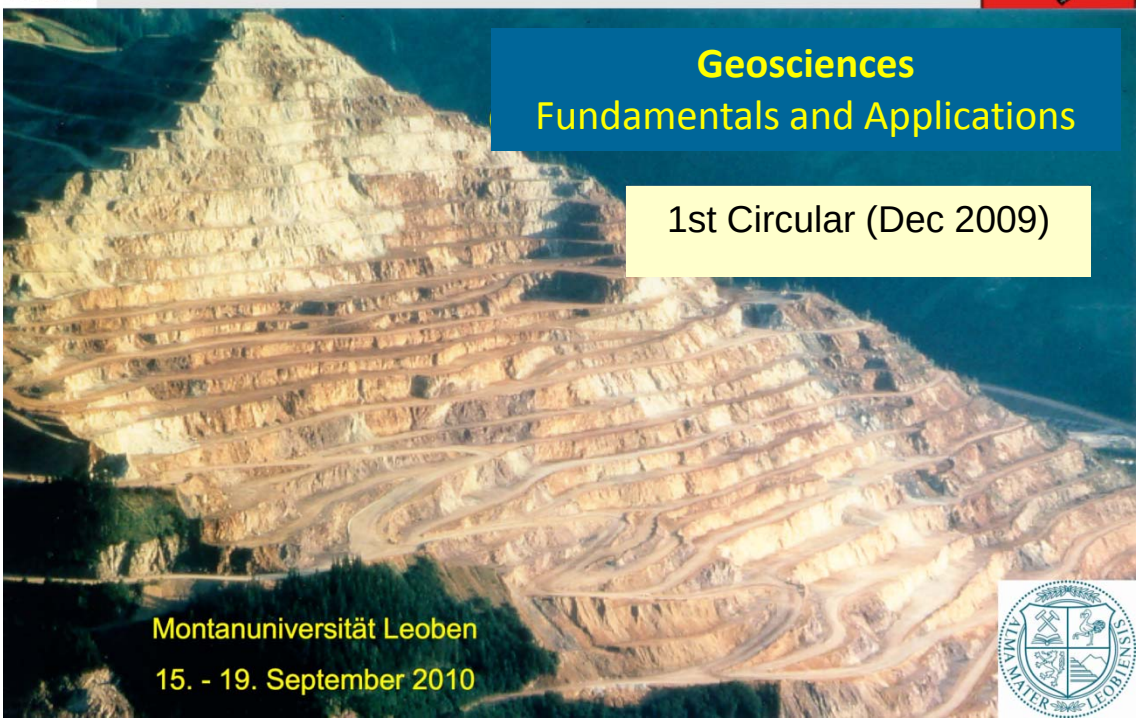
PANGEO AUSTRIA 2010
Leoben



Sponsors (as per Dec 2009)

University of Leoben
Department Applied Geosciences and Geophysics

PANGEO AUSTRIA 2010
Geosciences – Fundamentals and Applications

1st Circular (December 2009)

PANGEO AUSTRIA as the geoscience fair presenting Austrian research will be held between 15 and 19 September 2010 at the University of Leoben. The general topic of "**Geosciences – Fundamentals and Applications"** provides room for a wide spectrum of oral and poster presentations. The importance of regional geological aspects is emphasized by field trips. Young scientists in particular have the opportunity to present results of their research.
Where: Montanuniversität Leoben
When: 15 – 19 September 2010

Conference supported by
Österreichische Geologische Gesellschaft (ÖGG)
Österreichische Mineralogische Gesellschaft (ÖMG)
Österreichische Paläontologische Gesellschaft (ÖPG)
Österreichische Vereinigung für Hydrogeologie (ÖVH)
GeoAustria (Ges. Geol. Bergbaustud. Österr.)
Austrian Geophysical Society (AGS)

Organizing Committee
Montanuniversität Leoben, Department Angewandte Geowissenschaften und Geophysik: Fritz Ebner, Karl Millahn, Ronald Bakker, Hans-Jürgen Gawlick, LeGeo (Verein Leobener Geowissenschafter)

Scientific Committee
R. Bakker, A. Bechtel, F. Ebner, R. Galler, R. Gratzer, H.-J. Gawlick, S. Matthai, K. Millahn,T. Meisel, E. Niesner, W. Prochaska, J. Raith, G. Rantitsch, R.F. Sachsenhofer, R. Scholger, O.Thalhammer, W. Vortisch.

Conference Programme: Overview

15/ 9/ 2010	Field Trips (pre-conference), Icebreaker Party
16 – 17 / 9/ 2010	Presentations (oral and poster papers)
16/ 9/ 2010	Public Lecture, Conference Dinner
18 – 19/ 9/2 010	Field Trips (post-conference)

The oral and poster paper presentations will be organized in sessions. The following general topics and special sessions are currently under preparation:

- Geology Alps – Carpatians – Dinarides
- Mesozoic elements of the Eastern Alps
- Dynamics of collisional orogens
- Quarternary elements of the Eastern Alps
- Stratigraphia Austriaca
- Palaeontology
- Phanerozoic Riffs
- Geo-Fluids
- Biomarkers and Stable Isotopes
- Mathematical Geology
- Science Transfer between Academia and the E&P Industry
- Deposits /Rraw Materials
- Engeneering Geology / Tunneling
- Hydrogeology
- Natural Risks
- Geophysics
- Archaeometry
- Seminar: „Geology in Schools“

The Organizing Committee invites suggestions for additional sessions focusing on current research topics and activities and for conveners until **15 / 01 / 2010**.

Conference Language
The official conference language is German; contributions in English are welcome.

Field Trips

Pre-Conference Field Trips

Wednesday, 15 September 2010, departure Leoben 10:00 a.m.

E/1 Styrian Iron Trail - Historical Mining Excursion (G. Sperl)
In the "Eisenerzer Alps" there are traces of mining and metallurgy since 3000 years, based on chalcopyrite-ores. In 1547 the modern copper production started working until 1855. In 1711 also iron mining started and ended in 1979. The "Paradeisstollen" (gallery of paradise) and the castle "Greifenberg" are the monuments remembering historical mining. The historical centres of iron-production around the "Erzberg", the iron-ore -mountain (active mine since 1000 years) are Eisenerz, where the modern iron mine is situated, and Vordernberg, whose 14 blast-furnace-sites ("Radwerke") were the metallurgical centre in the south of the mining area. The well-preserved blast furnace "Radwerk IV" is now the metallurgical museum, showing the structure of 1846; the equipment to be visited during the guided tour shows the state of 1911, when finished the production of pig iron. For the economic unit "Radwerk" 60 to 100 people, including the families, were engaged, headed by the "Radmeister" (master of the waterwheel), for mining, transport of the ore, charcoal and the iron-blooms or pieces of pig-iron (Blattln) and further metallurgical work in the furnace for roasting and smelting. So this "Steirische Eisenstraße"(Styrian Iron Trail) is an area of longterm technical and cultural tradition, now visible by its monuments and a beautiful landscape of the Eisenerzer Alps.
Services: Bus trip, entrance fee iron museum “Radwek IV” and “Paradeisstollen”, booklet “Eisenstraße”.
Fee: € 40,--

E/2 Koralm railway tunnel (Styrian side) (R. Galler, G. Harer)
At present many European railway companies are working hard to create an efficient trans-European railway network. Austria defined in conformity with European intentions five main railway axes to be improved, one being the so called Pontebbana corridor, connecting the Priority Project 23 (PP23) from Poland, the Czech Republic and Slovakia via Vienna with Italy and the Mediterranean Sea. One of the key projects along this corridor is the Koralm railway with an overall length of approximately 126 km, including the Koralm tunnel. The new railway line will reduce the present travel time between the provincial capitals of Graz and Klagenfurt from present three hours to one hour and will form the basis for significantly improved passenger and goods transport. The most prominent tunnel along this stretch will 2 be the Koralm tunnel, which will underpass the Koralpe, a mountain range between the provinces of Carinthia and Styria. This double tube tunnel will have a length of approximately 32.9 km, making it to one of longest traffic tunnel projects in Europe. At the excursion a visit of the tunnel project at the Styrian side of the Koralpe (surroundings of Deutschlandsberg) is planned. Along Baulos KAT 1 Neogene sediments are tunnelled with conventional tunnel methods, the excavation along the lot of KAT 2 within crystalline rocks of the Koralpe are planned to be done by a TBM.
Services: Bus trip, excursion guidebook, packed lunch.
Fee: € 35,--

E/3 The Kraubath Ultramafic Massif (O. Thalhammer, K. Horkel, H. Mali, F. Ebner)
This excursion will focus on the Kraubath Ultramafic Massif, the largest massif of that type in the Eastern Alps. We will explain the geological location of the massif, interpreted as a portion of an Early Palaeozoic ophiolite, as part of the Austroalpine Crystalline Complex and will show the lithology of these variably serpentinised mantle rocks. Furthermore we will guide participants to exposures of schlieren-type chromitites, where the first platinum-group minerals in the Eastern Alps had been discovered, and cryptocristalline magnesite occurrences.
Services: Bus trip, excursion guidebook, packed lunch.
Fee: € 20,--

E/4 Late Triassic basin-platform transitions in the region of Aflenz - Northern Calcareous Als, Styria (R. Lein, L. Krystyn)
The Aflenz region exposes one of the best preserved Late Triassic basin-platform transition of the Eastern Alps which in principal comprises a two-staked facies transition of different superimposed basin-platform complexes of Carnian (Raibl beds / Waxeneck Dolomite) respectively Norian (Aflenz Lmst. / Dachstein Lmst.) age. The excursion will concentrate on the Carnian one. The construction of a new road, crossing the slope -near basin, offers the rare opportunity to study in detail the multiple change of carbonatitc und siliciclastic sedimentary complexes - a characteristic feature of the Northalpine Raibl Beds. Of major importance are largescaled gliding blocks to slices of various platform slope origin (including Cipit boulders). The questions concerning the main control of the repeated change of carbonatic vs. siliciclastic sedimentation and the difficult regional correlation of the sequence will be discussed. On a walk along the new road to the Aflenzer Bürgeralm (1530m) the prominent sequence of Carnian slope-near basinal sediments (Northalpine Raibl Beds) with common redeposition will be presented. Normal hiking equipment (protection against rain!) is recommended. Lunch will be taken on the field.
Services: Bus trip, excursion guidebook, packed lunch.
Fee: € 30,--

Post-Conference Field Trips

Saturday, 18/9/2010, Departure Leoben 8:30 hrs.

E/5 Neogene of the Noric Depression (W. Gruber and R.F. Sachsenhofer)

The Neogene sediments of the Noric Depression host a wide variety of mineral commodities including coal, building stone, tuff, thermal and medicinal water. Thus, the Neogene basins are of great economic importance. Within the frame of the field trip, outcrops in the Leoben Basin, which are less well-known and classical outcrops in the Fohnsdorf Basin will be visited. The outcrops will provide an opportunity to discuss the evolution of the Neogene basins and their significance for the understanding of the geodynamic evolution of the Eastern Alps, as well as the formation mechanisms of the raw materials.

Services: Bus trip, excursion guidebook, packed lunch.

Fee: € 30,--

E/6 The siderite deposit of the "Styrian Erzberg" and the Palaeozoic sequence of the Greywacke Zone at Polster/Präbichl Mt. (W. Prochaska and F. Ebner)

Numerous siderite mineralizations of various sizes can be found in Early Palaeozoic rock series of the Greywacke Zone of the Eastern Alps. This excursion focuses on the Erzberg siderite deposit, situated in the province of Styria, Austria, which is he only operating Fe-mine in Austria and the symbol of mining in Austria. Currently the Austrian iron ore production of about 2 mio t is exclusively produced from this mine. During the excursion fine-grained limestones of Devonian age hosting the siderite body of the Erzberg; as well as metasomatic-epigenentic structures will be demonstrated. Eoalpine tectonic structures and weak metamorphic overprints are ubiquitous in the Erzberg deposit. Different generations of Fe-carbonates have been described. The only ore mineral of economic importance is siderite but frequently ankerite haloes around the siderite ore body are present and will be shown during the excursion. More recent investigations will be discussed on the fluid chemistry of the siderite mineralizations revealed characteristics of residual brines (similar to the fluids of magnesite mineralizations) produced during evapo-concentration of seawater for all siderite occurrences of the Greywacke Zone, regardless their host rocks and stratigraphic position, suggesting a Permo-Triassic origin of the mineralizing fluids. After visit of the Erzberg deposit and ascent with the chair lift an overview of the stratigraphy and tectonic evolution of the Noric Nappe of the Greywacke zone is presented at the Polster Mt. Outcrops of Late Orodovican porphyroids, Silurian nautilild limestones, Devonian Polster limestone and the Permian Präbichl Conglomerate can be studied along sections at Polster Mt., around the Leobener Hütte and in the Handlgraben. Special interest is focussed to the transition of the Präbichl Conglomerate to the structural base of the Calcareous Alps, the classic Variscan angular unconformity and stocks of ankeritic mineralizations within the Devonian limestones and the Permian Präbichl Conglomerate. At bad weather conditions only the section from the Handlgraben to the Leobener Hütte (porphyroids, nautiloid limestones, Polster limestone), the classic Variscan angular unconformity and the Präbichl Conglomerate with stocks of ankerite mineralization will be presented. The field trip will be in high mountains. Therefore alpine equipment for walking, including rain protection, will be needed.

Services: Bus trip, chair lift, excursion guide book, packed lunch.

Fee: € 35,--

E/7 Excursion addressed to the seminar „Geology in Schools“

In preparation

E/9 Fossils of the Neogene Noric Depression - Excusion of the ÖPG (M. Gross, I. Fritz)

Registration directly to: Martin Gross, Universalmuseum Joanneum, Geologie & Paläontologie, Weinzöttlstrasse 16, 8045 Graz; martin.gross@museum-joanneum.at Due to coal-mining within the Noric Depression fossil plant and vertebrate remains attract attention already in the 19th century. Beside mammal findings within the lignites as well as within associated rocks, fish skeletons and leaf remains from the roof rocks were studied e.g., by F. Unger, C. v. Ettingshausen, A. Hofmann and A. Zdarsky. The "Fohnsdorf shell marble" and the "Maria Buch sinter" were highly requested decoration and building stones. This excursion aims to provide a condensed overview of the Neogene evolution of the Leoben and Fohnsdorf Basin and to offer the possibility for collecting of some proof specimens. Planned excursion stops are: Seegraben/Leoben (fossil leaves) - Sillweg (shell marble, fossil plants/fishes) - joint lunch - mining museum Fohnsdorf - clay pit Apfelberg - quarry Maria Buch - possibility for joint dinner. All visited locations are private property! Due to restricted parking space it is necessary to carpool on defined assembly points. Long-distance marches are not planned. However, sturdy shoes and rain shield is required.

Services: Excursion guide book. Transport: at cost price, car pools

Fee: € 10,--

Two-day excursion

Saturday/Sunday 18/19 Sept. 2010; Departure in Leoben at 08.30 h (Saturday)

E/8 Jurassic deep water basin and carbonate platform formation in the Salz-kammergut area (H.-J. Gawlick, S. Missoni, F. Schlaginweit & H. Suzuki)

In this field trip the topic is to visit and understand the formation of Jurassic deep-water trench-like basins and the onset of carbonate platforms in a propagating thrust belt. The Salzkammergut area provide in one of the most prominent alpine areas and as a classical area of alpine research best conditions to study the Jurassic history in the north-western end of the Tethys realm: Austria´s Northern Calcareous Alps formed together with the Carpathians, the Southern Alps and the Dinarids an up to 300 km wide and approximately 700 km long shelf strip at the western Tethys end. Jurassic sedimentation in the realm is controlled by their palaeogeographic position in between two oceans: opening of the Central Atlantic Ocean with its continuation into the Ligurian-Penninic Ocean leads to a new Mediterranean plate configuration. Successive spreading of the Ligurian-Penninic Ocean is mirrored by the closure of parts of the Tethys Ocean resulting in an early deformation of a former Triassic carbonate shelf shelf since late Early Jurassic time. Deformation and accretion starts in late Early Jurassic in the outer shelf. In the Middle Jurassic compressional tectonics reached the inner parts of the shelf and affected the Triassic carbonate platforms. Deep water trench like basins in front of advancing nappes were formed. These basins accumulated thick successions of gravitatively redeposited sediments derived from the accreted older sedimentary sequences. Uplift of the accreted nappes led to the formation of shallow-water carbonate platforms. Due to the formation of these Late Jurassic to Early Cretaceous carbonate platforms the trenches and the rises are sealed hemipelagic and shallow-water carbonates. The field trip will be in high mountains. Therefore alpine equipment for walking, including rain protection, will be needed.

Services: Bus trip, excursion guide book, overnight in two bed rooms, breakfast, 2 packed lunches.

Fee: € 85,--

Fees: Conference and Field Trips

Conference Fees
Payment before 17/04/2010:

	€
Member ÖGG, ÖMG, ÖPG, ÖVH und AGS	85.--
Non-member	100,--
Student (student card required), pensioner, unemployed geoscientist	45,--

Payment after 16/04/2010:

Member ÖGG, ÖMG, ÖPG und ÖVH	100,--
Non-member	120,--
Student (student card required), pensioner, unemployed geoscientist	65,--

The conference fee covers: access to conference halls, book of abstracts, coffe breaks, Icebreaker Party.

Conference Dinner on 16 September 2010	38,--

Field Trips: Fees

E/1	**Styrian Iron Trail**	40,--
E/2	**Koralm Railway Tunnel**	35,--
E/3	**Kraubath Ultramafic Massif**	20,--
E/4	**Triassic Platform Aflenz**	30,--
E/5	**Neogene of the Noric Depression**	30,--
E/6	**Siderite deposit of the "Styrian Erzberg"**	35,--
E/7	**Excursion „Geology in Schools“ (in preparation)**	*special registration*
E/9	**Fossils of the Neogene Noric Depression – ÖPG field trip**	*special registration*
E/8	**Jurassic deep water basin and carbonate platform formation Salzkammergut**	85,--

Field trip fees include: travel from and to Leoben in buses, packed lunch (where stated), field trip booklet, accommodation/breakfast (E8 only).

Contributions to Students
Student delegates who are members of ÖGG (Austrian Geological Society) may apply for travel and conference grants.
Applications for membership (**http://www.geolges.at/mitglied.html**).
Applications for grants by e-mail to **oegg@geologie.ac.at**.

Conference and Field Trip Registration, Payment of Fees

Registration
Via conference homepage http://pangeo2010.unileoben.ac.at or enclosed form. You will receive confirmation of your registration and details about total fees by electronic mail.
Your registration will be validated only after payment of all fees has been received.

Early registration for field trips is recommended for our detailed planning: please register until 1 February 2010. As the number of field trip participants is limited, we advise early payment of all fees.

Payment by bank transfer:

Montanuniversität, 8700 Leoben
Account-No. 50077327401, Bank Austria, BLZ 12000
Reference: „Pangeo 2010“
Edifact: ATBAA
BIC-Code: BKAUATWW
IBAN: AT031200050077327401

Please clearly state your name. Payments from foreign banks must free of charges for the payee. Payment by credit card is not possible.

The registration for the special seminar “Geology in Schools” will be arranged by Pädagogische Hochschule Wien (in preparation). Such a registration does not include free participation in the PANGEO conference; seminar delegates who wish to attend PANGEO sessions have to register for the conference.

Submission of conference papers

Oral and poster papers should be submitted by e-mail (pangeo2010@unileoben.ac.at). Abstracts and Extended Abstracts will be published in Journal of Alpine Geology (Vol. 52).

Contributions must follow the sample format of abstracts shown below. The Scientific Committee and the Conveners reserve the decision to accept or decline submitted papers or to change an oral contribution into a poster paper. Authors will be notified about the decision. The final conference programme together with titles of sessions, names of conveners and accepted papers will be published in the Second Circular

Sample Format: Abstract

Maximum size of manuscripts (including figures):

Abstract	2 pages
Extended Abstract	10 pages

Sample Abstract / Abstract for PANGEO AUSTRIA 2010:

Title

AUTHOR, 1[.1], AUTHOR, 2.[1] & AUTHOR, 3[.2]

[1] Address 1
[2] Address 2

The manuscript text should be prepared in MS-Word or a similar compatible software programme; font Times New Roman or Arial, size 12 pt, line spacing 1.5. Document format .doc or .rtf. Figures and diagrams must be submitted in separate files (black and white only, format .tif, minimum resolution 600 dpi, text in fonts "sans serif"). Abstracts should not exceed 2 pages, Extended Abstracts should not exceed 10 pages (including references and figures). The list of references should follow the sample below. Use small caps instead of capital letters.

References: (Examples)

TOLLMANN, A. (1985): Geologie von Österreich, Band 2. - 1-710, (Deuticke) Wien.

GAWLICK, H.-J. & LEIN, R. (2000): Die Salzlagerstätte Hallein – Bad Dürrnberg. - Mitt. Ges. Geol. Bergbaustud. Österr., **44**: 263-280, Wien.

ORCHARD, M.J. (1991): Upper Triassic conodont biochronology and new index species from the Canadian Cordillera. - (In: ORCHARD, M.J. & MCCRACKEN, A.D. (Eds.): Ordovician to Triassic Conodont Paleontology of the Canadian Cordillera), Geol. Survey of Canada Bull., **417**: 299-335, Vancouver.

Important Dates

Suggestions for special sessions and conveners	15 / 01 / 2010
Registration for field trips	15 / 02 / 2010
Submission of extended abstracts	15 / 02 / 2010
Payment conference fees	16 / 04 / 2010
(higher fees after this date)	
Submission of abstracts	01 / 06 / 2010

Accommodation

Conference delegates are kindly asked to organize their accommodation. Referencing „PANGEO 2010“ this can be arranged with:

Congress Leoben
„Altes Rathaus“
Hauptplatz 1
A-8700 Leoben,
Tel.: 03842/42581
Fax: 03842/42581-24
e-Mail: congresszentrum@leoben.at

Contact and Information

The organizers can be contacted	pangeo2010@unileoben.ac.at
Homepage and Registration	*http://pangeo2010.unileoben.ac.at*

Registration Form PANGEO AUSTRIA 2010
15 – 19 September 2010

Name	
First Name	
Title	
Company/Organisation	
Dept. / Institute	
Street	
Postal Code	
City	
Country	
Phone	
Telefax	
E-Mail	

I am aware of the fact that my personal information will be stored in a database at the University of Leoben and used for further purposes relevant to the preparation and organisation of the conference. The information will not be used for any other purposes nor passed on to third parties. When all activities linked to the conference and its organisation have been completed, the database and all personal data will be deleted.

I agree to receiving further information about the conference by electronic mail ☐ Yes ☐ No

	Title	*Author(s)*
Poster 1		
Poster 2		
Paper 1		
Paper 2		

I wish to register for (*please tick appropriate boxes*)

		Amount €
X	Conference Presentations 16 & 17 September 2010	
	Conference Dinner (16/9/2010)	38,00
	Field trip E1: **Styrian Iron Trail**	40,00
	Field trip E2: **Koralm Railway Tunnel**	35,00
	Field trip E3: **Kraubath Ultramafic Massif**	20,00
	Field trip E4: **Triassic Platform Aflenz**	30,00
	Field trip E5: **Neogene of the Noric Depression**	30,00
	Field trip E6: **Siderite deposit of the "Styrian Erzberg"**	35,00
	Field trip E7: **Excursion „Geology in Schools“**	??
	Field trip E9: **Fossils of the Neogene Noric Depression**	10,00
	Field trip E8: **Jurassic basin and carb. platform Salzkammergut**	85,00

Conference Fee		***After*** ***16/4/2010***
	€	€
Member	85,00	100,00
Non-member	100,00	120,00
Reductions	45,00	65,00

	ÖGG	*ÖMG*	*ÖPG*	*ÖVH*	*AGS*
Member					

All field trips are „open air events“ and do depend on weather conditions.
Further information about field trips will be distributed.

Place, date

Signature

Please send by e-Mail (pangeo2010@unileoben.ac.at) oder Telefax an: (+43)-(0)3842-402 6102