

CZECHOSLOVAK ACADEMY OF SCIENCES

GEOPHYSICAL INSTITUTE

INTERNATIONAL MEETING ON
TERRESTRIAL HEAT FLOW AND
THE STRUCTURE OF LITHOSPHERE

P R O G R A M M E

THE CASTLE OF BECHYNE

SEPTEMBER 2-7, 1991

LAST MINUTE INFORMATION

VENUE

The Meeting is held in the Castle of Bechyne, in Southern Bohemia, about 24 km from the historical town of Tabor and approximately 110 km south of Prague.

The address of the Castle :

Dum vedeckych pracovniku CSAV
(The Castle of Bechyne)
391 65 B e c h y n e
phone : (+42 937) 96244

MEALS

All meals will be served in the Castle (if not mentioned otherwise) in the dinning room on the ground floor

The meal times are :

breakfast	7:30 - 8:15
lunch	12:30 - 13:30
dinner	18:30 - 19:30

Coffee will be served on the first floor at approx. 10:30 - 11:00 and 16:00 - 16:30.

The beverages are to be paid separately. After being registered, each participant will receive a special consumption card with his (her) name. Using this card, one is entitled to order drinks (soft drinks, beer, wine, etc.) as well as some other extras, such as sweet, postcards, souvenirs, the purchase of which will be marked on the card and the total amount is to be paid on the departure from the Castle.

Usually, the service in the Castle is provided till 23:00 hours. You are welcome to stay longer and enjoy your time and the company of your friends, but you are advised to order the necessary supplies before that time.

PROJECTION EQUIPMENTS

The standard equipments are two 5x5 cm slide and overhead projectors. Speakers are asked to pay particular attention to the order and correct position of their slides. Slides are to be handed at least 10 minutes before a session starts with an indication as to which is the top right corner for erect viewing.

POSTER DISPLAY

In the attached list of programme, each poster has its serial number. The space reserved for the display is in corridors of the 1st floor and in the ground floor. Here each author will find an approx. 1x1.5 m white board identified by his number. This board is allocated for the presentation. For technical help, please contact someone from the Organizing Committee.

You are asked to prepare your poster during Monday evening or Tuesday morning. Brief oral introduction (3 minutes per poster) is planned for Tuesday late afternoon and the presentation will take place on Thursday before leaving for the afternoon trip. Do not forget to collect back your material before Friday morning, when the boards have to be removed.

PUBLICATION OF THE PROCEEDINGS

No definite steps have been taken yet concerning the publication of papers presented during the meeting. We have some offers to publish our material as either a special issue or a proceedings volume. This matter will be discussed during the meeting and the corresponding measures will be taken.

SECRETARIAT

The Secretariat of the meeting will be open in the Castle on the first floor every day from 9:00 to 15:00 hours, all necessary information you can get there. Please, contact Mrs. Hana Prochazkova.

The Organizing Committee wish you a pleasant stay in the Bechyne Castle and a really fruitful participation in the whole meeting.

Vladimir Cermak
for the Organizing Committee

GENERAL PROGRAMME

Monday, September 2

all day	Arrival in Prague
	Meeting in the Intercontinental Hotel
12:00	Sightseeing walking tour to visit the historical parts of Prague
16:00/17:00	Bus departures for Bechyne
19:00	Arrival in Bechyne, Accommodation in the Castle
20:00	Dinner

Tuesday, September 3

8:30	Opening of the Meeting, Greetings
9:00-12:30	Scientific Programme (Oral presentations)
14:00-16:00	Scientific Programme (cont.)
16:30-18:00	Brief introductions to Poster presentations
19:00	Bar-be-cue and beer party (Castle Garden)

Wednesday, September 4

8:30-12:30	Scientific Programme
14:00-18:00	Scientific Programme (cont.)
20:00	Theater Performance in the Castle

Thursday, September 5

8:30-10:00	Scientific Programme
10:30-11:30	Posters
11:30	Lunch
12:00	Departure for Tabor, Hluboka Castle
17:00	Dinner in "Mastne Kramy" at Ceske Budejovice
18:00	Castle Kratochvile, Exhibition and ARS Cameralis
	Concert "Hudba na panovnickych dvorech"
21:00	Return to Bechyne

Friday, September 6

8:30-12:30	Scientific Programme
14:00-17:30	Scientific Programme (cont.) and General Discussion
19:00	Farewell Party - Cocktails in Bechyne Castle

Saturday, September 7

morning	Departure for Prague, transport to the airport and railway stations
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Scientific programme

Tuesday, Sept. 3

08:30

Opening Ceremony

Greetings - Prof. H.N.Pollack, President of the IHFC
Dr.V.Cermak for the Geophysical Institute

Short break

09:00 - 10:30

Convenors : A.H.Lachenbruch and G.Vasseur

Hurter, S. and Pollack, H.: THE NEW GLOBAL HEAT FLOW DATA BASE
(Invited)

Lewis, T.J., Bentkowski, W.H. and Hyndman, R.D.: CRUSTAL
REFLECTORS, METAMORPHIC REACTIONS AND CRUSTAL TEMPERATURES
(Invited)

Banda, E. and Fernàndez, M.: ANOMALOUS UPPER MANTLE VERSUS
ANOMALOUS UPPER CRUST IN EXTENSIONAL AREAS. A DISCUSSION

10:30

Coffee break

11:00 - 12:30

Cermak, V. and Bodri, L.: GEOTHERMAL MODEL OF THE CONTINENTAL
CRUST (Invited)

Buntebarth, G.: HEAT FLOW DENSITY VARIATIONS CAUSED BY
DEHYDRATION OR ALTERATION PROCESSES IN THE CRUST

Chapman D.S. and Davis E.E.: HYDROTHERMAL CIRCULATION IN YOUNG
OCEANIC CRUST; THE FLANK FLUX EXPERIMENT ON THE EASTERN FLANK
OF THE JUAN DE FUCA RIDGE

12:30 - 14:00

Lunch break

afternoon

Convenors : H.N.Pollack and Shen Xianjie

14:00 - 16:00

Vignerresse, J.L. and Cuney, M.: HIGH HEAT PRODUCTION GRANTIES (HHPG) DISTRIBUTION AND PREVIOUS RADIOGENIC ENRICHMENT IN THE CONTINENTAL CRUST

Clauser, Ch., Neugebauer, H.J.: HEAT ADVECTION IN CONTINENTAL RIFT ZONES ? CONSTRAINTS FROM NUMERICAL SIMULATIONS (Invited)

Jones, F.W.: A THREE-DIMENSIONAL DOWNGOING SLAB MODEL

Sychev, P.M., Senachin, V.N., Soinov, V.V., Veselov, O.V., Volkova, N.A.: THERMAL ISOSTASY OF OCEANIC SWELLS, RIDGES AND SEAMOUNTS

Kono, Y.: A THERMAL MODEL OF SECULAR VARIATION OF LITHOSPHERE: ROLE OF LATENT HEAT IN ASTHENOSPHERE

16:00

Coffee break

16:30 - 18:00

Brief oral introductions of posters (3 minutes per speaker)

- 1 Cabal, J. and Fernández, M.: THERMAL DATA IN THE VARISCAN IBERIAN BELT TRANSECT (NW SPAIN): A PROGRESS REPORT
- 2 Milivojevic, M.: A TEMPERATURE FIELD AND GEOTHERMAL MODEL OF THE EATRH'S CRUST ON THE TERRITORY OF THE YUGOSLAVIA: SOME TECTONIC IMPLICATIONS
- 3 Král, M. and Jančí, J.: HEAT FLOW DENSITY AND TEMPERATURE FIELD OF THE WEST CARPATHIANS
- 4 Majcin, D.: THERMAL STATE OF WEST CARPATHIAN LITHOSPHERE
- 5 Zui, V.I.: HEAT FLOW AND CRUSTAL EVOLUTION WITHIN BELORUSSIA
- 6 Levashkevich, V.G. and Tsibulya, L.A.: NON-BOREHOLE MEASUREMENTS OF HEAT FLOW ON THE SHELF OF THE BARENTS SEA AND GREENLAND-NORWEGIAN BASINS
- 7 Tsibulya, L.A. and Levashkevich, V.G.: HEAT FLOW IN THE BARENTS SEA REGION
- 8 Gupta, M.L.: A COMPARISON OF THERMAL CHARACTERISTICS AND MOBILITY OF GONDWANIC LAND MASSES

- 9 Bodri, B., Iizuka, S.: GEOTHERMAL MODEL OF THE CRUST IN CENTRAL JAPAN - INFERENCES FROM RHEOLOGICAL CONSTRAINTS AND SEISMICITY DATA
 - 10 Jessop, A.M.: HEAT FLOW FROM THE PRECAMBRIAN BASEMENT OF THE WESTERN CANADA SEDIMENTARY BASEMENT
 - 11 Parphenuk, O.I., Mareschal, J.C.: A FINITE ELEMENT MODEL OF EVOLUTION FOR THE KAPUSKASING STRUCTURAL ZONE
 - 12 Jones, M.Q.W.: DEEP TEMPERATURE STRUCTURE OF THE WITWATERS-RAND BASIN AND RESULTS OF FORWARD MODELLING
 - 13 Furumoto, S. and Hamza, V.M.: SISTERM - A GEOTHERMAL INFORMATION SYSTEM FOR SOUTH AMERICA
 - 14 Hurter, S. and Pollack, H.: GEOTHERMAL EFFECTS IN SEDIMENTS OF THE PARANÁ BASIN IN SOUTHERN BRAZIL AS RECORDED BY ILLITE CRYSTALLINITY
 - 15 Munoz, M., Hamza, V.: HEAT FLOW AND TEMPERATURE GRADIENTS IN CHILE
 - 16 Clauser, Ch., Chapman, D.S., Willett, S.D.: SCALE EFFECT OF PERMEABILITY AND THERMAL METHODS AS CONSTRAINTS FOR REGIONAL-SCALE AVERAGES
 - 17 Jones, F.W.: A NUMERICAL MODEL OF THE DIVIDED-BAR APPARATUS
 - 18 Kostyaney, S.G.: ON A DIRECT AND INVERSE GEOTHERMAL PROBLEM
 - 19 Lewis, T. and Benthowski, W.: INFLUENCE OF TERRAIN ON BEDROCK TEMPERATURES
 - 20 Beltrami, H., Mareschal, J.C. and Jessop, A.M.: RECENT WARMING IN EASTERN AND CENTRAL CANADA INFERRED FROM BOREHOLE TEMPERATURE MEASUREMENTS
 - 21 Chapman, D.S. and Chisholm, T.J.: BOREHOLE TEMPERATURES RECORD CLIMATE CHANGE; AN EXAMPLE FROM WESTERN UTAH, USA
 - 22 Hamza, V.M., Ribeiro, F.B. and Becker, E.A.: RECENT CLIMATIC CHANGES IN THE SOUTHERN HEMISPHERE
 - 23 Duque, M.R. and Mendes-Victor, L.A.: HEAT FLOW AND THERMAL FIELD IN SOUTH PORTUGAL
 - 24 Prol-Ledesma, R.M.: GEOTHERMAL GRADIENT MEASUREMENTS IN SHALLOW WELLS IN NORTHERN MEXICO
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Wednesday, September 4

morning

Convenors : O.Flovenz and M.Q.W. Jones

08:30 - 10:30

Majorowicz, J.A. and Judge, A.S.: THE GEOTHERMAL FIELD AND GAS
HYDRATE STABILITY, BEAUFORT-MACKENZIE AREA, CANADA

Pribnow, D.: DETERMINATION OF THERMAL CONDUCTIVITY IN THE KTB
PILOT HOLE

Hurtig E.: TEMPERATURE - DEPTH DISTRIBUTION AND HEAT FLOW DENSITY
IN THE EUROPEAN EARTH CRUST

Kukkonen, I.T.: ESTIMATING HEAT FLOW DENSITY WITH HIGH SPATIAL
RESOLUTION IN THE FENNOSCANDIAN SHIELD (Invited)

Balling, N. and Nielsen, S.: LITHOSPHERE TEMPERATURE AND HEAT
FLOW STRUCTURE DETERMINED BY INVERSE MODELLING

10:30 Coffee break

11:00 - 12:30

Monsen, K.: ORIENTATION ON PROGRAMME OF HEAT FLOW MEASUREMENTS IN
NORWAY

Babuska, V. and Plomerova, J.: LITHOSPHERE THICKNESS AND VELOCITY
ANISOTROPY - SEISMOLOGICAL AND GEOTHERMAL ASPECTS

Zui, V.I.: HEAT FLOW AND LITHOSPHERE STRUCTURE WITHIN WESTERN
PART OF THE EAST-EUROPEAN PLATFORM

Safanda, J., Kashubin, S. and Cermak, V.: TEMPERATURE MODELLING
ALONG THE TARATASHSKIY PROFILE CROSSING THE URAL MOUNTAINS

12:30 Lunch break

afternoon

Convenors : E.Hurtig and N.Balling

14:00 - 15:30

Schellschmidt, R., Schulz, R. and Jobmann, M.: HEAT FLOW
ANOMALIES IN CENTRAL EUROPE - ARE THEY REALLY ANOMALOUS?

Kubík, J. and Šafanda, J.: HEAT FLOW AND THERMAL CONDUCTIVITY OF A SEDIMENTARY FORMATION. A CASE STUDY FROM THE CENTRAL BOHEMIAN BASIN

Demetrescu, C., Andrescu, M. and Polonic, G.: ON THE THERMAL EVOLUTION OF SOME TECTONIC UNITS IN A CONTINENTAL COLLISION ENVIRONMENT IN ROMANIA

Fernandez, M., Foucher, J.P. and Jurado, M.J.: HEAT FLOW DATA AND THERMAL EVOLUTION OF THE SW PART OF THE VALENCIA TROUGH (WESTERN MEDITERRANEAN)

15:30 Coffee break

16:00 - 18:00

Correia, A., Jones, F.W., Dawes, G., Hutton, V.R.S.: A MAGNETO-TELLURIC STUDY OF A GEOTHERMAL ANOMALY IN PORTUGAL

Fraseri, A.: ALBANIDES GEOTHERMY

Della Vedova, B. and Pellis, G.: HEAT FLOW AND THE STRUCTURE OF THE LITHOSPHERE OF THE CENTRAL MEDITERRANEAN AREA

Wright, J.A.: PRELIMINARY HEATFLOW NEAR CYPRUS: IMPLICATIONS FOR THE TECTONIC HISTORY OF THE EASTERN MEDITERRANEAN

Flóvenz, O.G. and Soemundsson, K.: HEAT FLOW AND GEOTHERMAL PROCESSES IN ICELAND

18:00 Finish

Thursday, September 5

morning Convenors : J.-C.Mareschal and Ch.Clauser

08:30 - 10:00

Egorkin, A.V., Milanovsky, S.Yu., Pavlenkova, N.I., Romanjuk, T.V.: COMBINED GEOPHYSICAL MODELS OF THE LITHOSPHERE FOR SIBERIA

Gupta, M.L.: STRUCTURE OF THE LITHOSPHERE BENEATH THE INDIAN PENINSULA : GEOPHYSICAL CONSTRAINTS (Invited)

Gupta, M.L. and Rastogi, B.K.: THERMAL STRUCTURE, RHEOLOGY AND SEISMICITY OF THE INDIAN CONTINENTAL LITHOSPHERE

Shen, X.: A TECTONO-THERMAL INTERPRETATION OF THE N-S HEAT FLOW PROFILE ALONG YADONG-GOLMUD GEOSCIENCE TRANSECT ON THE TIBETAN PLATEAU (Invited)

10:00 Coffee break

10:30 - 11:30

Poster presentation

11:30 Lunch break and Departure for the Afternoon trip

Friday, September 6

morning Convenors : T.Lewis and V.M.Hamza

08:30 - 10:30

Wang Ji-yang and Huang Shao-peng: HEAT FLOW PATTERN AND THERMAL STRUCTURE OF THE LITHOSPHERE IN CONTINENTAL AREA OF CHINA (Invited)

Lesquer, A., Lucazeau, E. and Vasseur, G.: THE WEST AFRICAN SHIELD: HEAT FLOW DENSITY AND LITHOSPHERIC STRUCTURE

Jones, M.Q.W.: PRESENT AND PAST THERMAL STRUCTURE OF THE SOUTHERN AFRICAN LITHOSPHERE: EVIDENCE FROM HEAT FLOW AND KIMBERLITE STUDIES

Nyblade, A.A. and Pollack, H.N.: THE THERMAL STRUCTURE OF THE LITHOSPHERE IN EAST AND SOUTHERN AFRICA

Abdelrahman, E.M., El-Araby, H.M., El-Hakim, B., Bayoumi, A.I., Ismai, A.M.: LEAST-SQUARES OPTIMUM-ORDER REGIONAL GEOTHERMAL GRADIENT DETERMINATION FROM DEEP BORE-HOLE TEMPERATURE DATA WITH APPLICATION TO THE WESTERN DESERT OF EGYPT

10:30 Coffee break

11:00 - 12:30

Sebagenzi, M.N., Vasseur, G. and Louis, P.: FIRST HEAT FLOW DENSITY DETERMINATIONS FROM THE SOUTH EAST OF ZAIRE (CENTRAL AFRICA)

Hamdani, Y. and Mareschal, J.C.: PALEO HEAT FLOW OF EASTERN CANADA PASSIVE MARGINS

Mareschal, J.C., Gariépy, C., Pinet, C. and Jaupart, C.: HEAT FLOW AND STRUCTURE OF THE LITHOSPHERE IN THE EASTERN CANADIAN SHIELD (Invited)

Majorowicz, J.A., Gough, D.I. and Lewis, T.J.: STRUCTURE OF THE CRUST FROM MT AND HEAT FLOW IN THE CANADIAN CORDILLERA

12:30 Lunch

afternoon Convenors : I.Kukkonen and Wang Jiyang

14:00 - 15:40

Lachenbruch, A.H., Sass, J.H., Galanis, S.P., Jr. and Priest, S.S.: THERMAL REGIME OF THE SOUTHERN BASIN AND RANGE, U.S.A., AND ITS METAMORPHIC CORE COMPLEXES (Invited)

Munoz, M.: RADIOGENIC HEAT PRODUCTION AND EROSION PROCESS IN CENTRAL CHILE

Hamza, V.M.: AN APPRAISAL OF BRAZILIAN HEAT FLOW DATA (Invited)

Kukkonen, I.T.: NEGATIVE TEMPERATURE GRADIENTS AT SHALLOW DEPTHS

15:40 Coffee break

16:00 - 18:00

Mongelli, F. and Zito, G.: THE CONTEMPORARY EFFECTS OF THE PAST CLIMATE AND OF SEDIMENTATION/EROSION ON THE GEOTHERMAL GRADIENT

Gosnold, W.D. and Bauer, M.: BORE HOLE TEMPERATURES AND CLIMATIC RECORD IN THE MIDCONTINENT OF NORTH AMERICA

Judge, A.S., Hedley A., Burgess, M. and MacInnes K.: CONTEMPORARY CLIMATE CHANGE IN THE CANADIAN WESTERN ARCTIC

General Discussion