



Conference Programme



3rd International Radiocarbon in the Environment Conference

5-9 July 2021, Gliwice, Poland

Conference Committees

3rd International Radiocarbon
in the Environment Conference
5-9 July 2021, Gliwice, Poland



Organizing Committee

Conference Chairperson
Secretary
Committee members

Andrzej Z. Rakowski
Sławomira Pawełczyk
Grzegorz Kazanowski
Danuta J. Michczyńska
Jacek Pawlyta
Barbara Sensuła
Konrad Tudyka
Aneta Jachimowicz

Honorary Committee

Committee members

Anna Pazdur
Romuald Awsiuk

Scientific Committee

Committee members

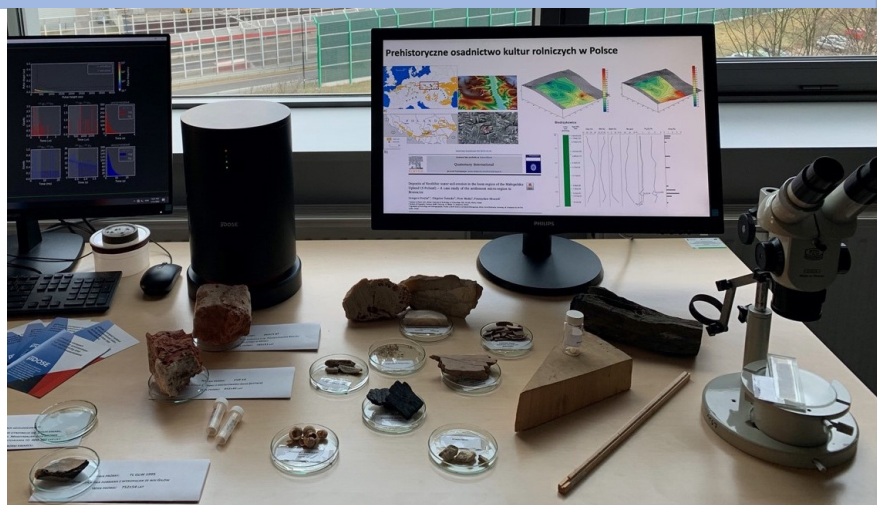
Philippa Ascough (NERC, East Kilbride, UK)
Elisabetta Boaretto (Weizmann Institute, Rehovot, Israel)
Jadranka Baresic (RBI Zagreb, Croatia)
Lucio Calcagnile (CEDAD, Lecce, Italy)
Alex Cherkinsky (University of Georgia, USA)
Tomasz Goslar (Adam Mickiewicz University, Poland)
Irka Hajdas (ETH, Zurich, Switzerland)
Christine Hatte (LSCE, Gif-sur-Yvette, France)
Matthias Huels (Uni Kiel, Germany)
Quan Hua (ANSTO, Sydney, Australia)
A.J. Timothy Jull (UA, Tucson, Arizona, USA)
Marek Krąpiec (UST, Kraków, Poland)
Guaciara Macedo dos Santos (UC, Irvine, USA)
Adam Michczyński (SUT, Gliwice, Poland)
Mihály Molnár (HEKAL, Debrecen, Hungary)
Marie-Josée Nadeau (NTNU, Trondheim, Norway)
Jasper Olsen (Aarhus University, Denmark)
Pavel Povinec (CUB, Bratislava, Slovakia)
Natalia Piotrowska (SUT, Gliwice, Poland)
Andrzej Z. Rakowski (SUT, Gliwice, Poland)
Paula Reimer (Queen's University, Belfast, UK)
Gianluca Quarta (CEDAD, Lecce, Italy)
Sonke Szidat (University Bern, Switzerland)
Susan Trumbore (MPI, Jena, Germany)
Lukas Wacker (ETH, Zürich, Switzerland)
Xiaomei Xu (UC, Irvine, USA)
Yusuke Yokoyama (University of Tokyo, Tokyo, Japan)

Division of Geochronology and Environmental Isotopes

Institute of Physics – Centre for Science and Education

Silesian University of Technology

Konarskiego 22B, 44-100 Gliwice, Poland



What do we do?

Division of Geochronology and Environmental Isotopes is a unique scientific unit, where nineteen persons delve into the fundamentals of physical isotope methods and their applications. We are engaged in interdisciplinary research projects in Earth and environmental sciences, archaeology and history. We also offer expertise services for national and foreign institutions.



Two Laboratories are functioning within the Division:

1. Radiocarbon and Mass Spectrometry Laboratory

- Radiocarbon measurements with various techniques (LSC, AMS)
- Light stable isotope determinations (HCNO) with IRMS

2. Luminescence Dating Laboratory

- Dosimetric dating methods (OSL, TL)
- Radioisotope measurements (γ and α spectrometry, e.g. ^{137}Cs , ^{210}Pb)

Why do we do it?

The isotope methods find its applications to construct the calendar timescales for Earth and human history, for geology, geomorphology, palaeoclimatic research, palaeogeography. They also allow to trace natural environmental processes and human impact. Isotopes have proved to be invaluable tools for biological research, like palaeobotany or dendrology, for anthropology, archaeology and palaeozoology - e.g. for diet reconstructions.

What do we offer?

- Work with a team of specialist in various isotope methods
- Gain experience in multidisciplinary research
- Get involved in international cooperation

Contact person Head of the Division of Geochronology and Environmental Isotopes
Dr hab. eng. Natalia Piotrowska, prof. in SUT e-mail: natalia.piotrowska@polsl.pl

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conference programme

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20-23	poster list
24	sponsors

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Please note that times are given in UTC+2:00 time zone.

UTC -8:00	UTC -6:00	UTC -5:00	UTC +2:00	UTC +3:00	UTC +9:00	UTC +10:00	UTC +12:00
23:30	1:30	2:30	9:30	10:30	16:30	17:30	19:30
0:10	2:10	3:10	10:10	11:10	17:10	18:10	20:10
1:10	3:10	4:10	11:10	12:10	18:10	19:10	21:10
1:30	3:30	4:30	11:30	12:30	18:30	19:30	21:30
1:50	3:50	4:50	11:50	12:50	18:50	19:50	21:50
2:50	4:50	5:50	12:50	13:50	19:50	20:50	22:50
3:10	5:10	6:10	13:10	14:10	20:10	21:10	23:10
3:50	5:50	6:50	13:50	14:50	20:50	21:50	23:50
4:10	6:10	7:10	14:10	15:10	21:10	22:10	0:10
4:30	6:30	7:30	14:30	15:30	21:30	22:30	0:30
4:50	6:50	7:50	14:50	15:50	21:50	22:50	0:50
5:10	7:10	8:10	15:10	16:10	22:10	23:10	1:10
5:30	7:30	8:30	15:30	16:30	22:30	23:30	1:30
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6:10	8:10	9:10	16:10	17:10	23:10	0:10	2:10
6:30	8:30	9:30	16:30	17:30	23:30	0:30	2:30
6:15	8:15	9:15	16:15	17:15	23:15	0:15	2:15
7:10	9:10	10:10	17:10	18:10	0:10	1:10	3:10
8:30	10:30	11:30	18:30	19:30	1:30	2:30	4:30
9:10	11:10	12:10	19:10	20:10	2:10	3:10	5:10

RE III

Methods

Atmosphere & Anthropogenic

Trees

Climate

Soil & Peat

Water Environment

invited speakers

Monday 05 July 2021

Methods

9:30-10:10	Opening
10:10-11:30	Walter Kutschera Hans-Arno Synal
11:30-11:50	coffee break
11:50-13:10	Hangtao Shen Gianluca Quarta Konstantin Pustovoytov Aybaniz Ahadova
13:10-14:10	lunch break
14:10-15:30	Stewart Freeman Tamas Varga Fatima Pawełczyk
15:30-15:50	coffee break
15:50-17:10	Adrian Marciszak Artur Ginter Elya Zazovskaya Linda Scott Cummings
17:10-19:10	poster session

programme summary

3rd International Radiocarbon
in the Environment Conference
5-9 July 2021, Gliwice, Poland



Tuesday 06 July 2021

Atmosphere & Anthropogenic

9:30-11:10	Quan Hua Jocelyn Turnbull Matthias Huels Martin Seiler
11:10-11:30	coffee break
11:30-12:50	Giulia Zazzeri Martin Rauber Mihaly Molnar Edwige Pons-Branchu
12:50-13:50	lunch break
13:50-14:50	Israel Carmi Kristina Eriksson Stenström Carley Crann
14:50-15:10	coffee break
15:10-16:30	Alicja Skiba Barbara Sensuła Guaciara Dos Santos
16:30-18:30	poster session

Wednesday 07 July 2021

Trees

9:30-11:10	Fusa Miyake Michael Dee Helene Løvstrand Svarva Ivan Kontul'
11:10-11:30	coffee break
11:30-12:50	Irka Hajdas Agnieszka Stojanowska Algirdas Pabedinskas
12:50-13:10	coffee break
13:10-14:30	Santiago Eduardo Ancapichun Hernandez Irina Panyushkina A.J.Timothy Jull
14:30-16:15	concert

SĄSTĄD



photo by Rafał Soliński

SĄSTĄD is an avant-pop band, created by musicians, who love their heritage – Silesia. They are inventing their own sound, which is a mixture of pop, jazz, and experimental music. Polish language and literature are huge inspiration for them, but – because of their artlessness- international listener will understand the feelings that are carried by the music. The origin of SĄSTĄD has its source in unconventional connection between voice and cello, double bass, piano and drums. 100% made in Poland.

SĄSTĄD is award - winning band. They've been taking part and winning the most important Polish music competitions in Warsaw, Cracow, Gdansk, Opole and Wrocław. Would you like to know what our band name means? SĄSTĄD means „THEY ARE FROM HERE”. It's not only about the place but also about the source of the music - from „here” which is from the bottom of the heart.



Thursday 08 July 2021

Climate

9:30-11:10	Yusuke Yokoyama Hong-Chun Li Anna Agatova Nadine Budantseva
11:10-11:30	coffee break
11:30-13:10	Adrian Marciszak Alla Vasil'chuk Danuta J. Michczyńska Piotr Moska Kita Chaves Damasio Macario
13:10-14:10	lunch break

Soil & Peat

14:10-15:50	Susan Trumbore Roman Nepop Włodzimierz Margielewski Botond Buró
15:50-16:10	coffee break
16:10-17:10	David Zal Alexander Cherkinsky Piotr Szwarzewski
17:10-19:10	poster session

Friday 09 July 2021

Water Environment

9:30-11:10	Seiya Nagao Sanja Faivre Evelyn Keaveney Jarmila Biskova Sofia Turchinskaia
11:10-11:30	coffee break
11:30-13:10	Maria Ilie Aislinn Fox Piotr Szwarzewski Ellen Druffel Christian B.Lewis
13:10-14:10	lunch break
14:10-14:50	Publications and Precedings Bids for the next conference Closing of the conference

Monday 05 July 2021: **Methods**

9:30-10:10

Andrzej Rakowski

Opening

chair: Andrzej Rakowski

Session 1

10:10-10:50

Walter Kutschera (invited speaker)

The versatile uses of the ^{14}C bomb peak

10:50-11:30

Hans-Arno Synal (invited speaker)

Progress in AMS and Opportunities for Applications in
Environment Research

11:30-11:50

coffee break

Session 2

chair: Irka Hajdas

11:50-12:10

Hangtao Shen

The ^{14}C -AMS technology and it's applications for evaluation
of the Properties of highly permeable aquifers cause by large
volume water injection in oil field

12:10-12:30

Gianluca Quarta

The IAEA forensics program: results of the AMS ^{14}C inter-
comparison exercise on contemporary wines and coffees

12:30-12:50

Konstantin Pustovoytov

^{14}C in biogenic carbonate of plant origin: environmental
factors and potential for radiocarbon dating

12:50-13:10

Aybaniz Ahadova

Comparative Dating of Charcoal, Tooth and Ceramic Samples
from the Polutepe Archeological Site in Azerbaijan

13:10-14:10

lunch break



Monday 05 July 2021: **Methods**

Session 3

chair: Philippa Ascough

- | | |
|-------------|--|
| 14:10-14:50 | Stewart Freeman (invited speaker)
Progress towards a PIMS-based laboratory radiocarbon & stable-isotope analysis solution |
| 14:50-15:10 | Tamas Varga
Honey as an indicator of long-term environmental changes: MP-AES analysis coupled with ¹⁴ C-based age determination of Hungarian acacia samples |
| 15:10-15:30 | Fatima Pawełczyk
Re-treatment of Cervus elaphus bone material in Gliwice Radiocarbon Laboratory using ultrafiltration |
| 15:30-15:50 | coffee break |

Session 4

chair: Alexander Cherkinsky

- | | |
|-------------|---|
| 15:50-16:10 | Adrian Marciszak
Stratigraphy of Biśnik Cave: new data and interpretations |
| 16:10-16:30 | Artur Ginter
Absolute dating intercomparison one of the biggest necropolis of Lusatian culture at Brzezina in Wielkopolska (Greater Poland) |
| 16:30-16:50 | Elya Zazovskaya
Radiocarbon age of organic matter in supraglacial systems |
| 16:50-17:10 | Linda Scott Cummings
Ancient Carbon in Radiocarbon Samples from a Glaciated Landscape in Minnesota |
| 17:10-19:10 | poster session |

Tuesday 06 July 2021: Atmosphere & Anthropogenic

Session 1

chair: Pavel Povinec

- | | |
|-------------|---|
| 9:30-10:10 | Quan Hua (invited speaker)
Applications of bomb radiocarbon in environmental and climate studies |
| 10:10-10:30 | Jocelyn Turnbull
Latitudinal Distribution of Atmospheric $\Delta^{14}\text{CO}_2$ over the Southern Ocean |
| 10:30-10:50 | Matthias Huels
Wheat seed (<i>Triticum aestivum</i> L.) radiocarbon concentration over the last 75 years |
| 10:50-11:10 | Martin Seiler
Radiocarbon measurement of precipitated atmospheric samples from 1960-1980 |
| 11:10-11:30 | coffee break |

Session 2

chair: Israel Carmi

- | | |
|-------------|--|
| 11:30-11:50 | Giulia Zazzeri
Development of a new system for sampling atmospheric methane for radiocarbon analysis |
| 11:50-12:10 | Martin Rauber
Optimised Aerosol Fraction Separation in Arctic Aerosol for Radiocarbon Measurement |
| 12:10-12:30 | Mihaly Molnar
Did atmospheric fossil carbon ratio decrease in the Carpatian basin due to the Covid-19? |
| 12:30-12:50 | Edwige Pons-Branchu
Radiocarbon on urban secondary carbonate deposits : site effect and implication for chronology of historical pollution reconstruction. Case study of Paris and Versailles Palace's fountains |
| 12:50-13:50 | lunch break |



Tuesday 06 July 2021: Atmosphere & Anthropogenic

Session 3

chair: Gianluca Quarta

13:50-14:10

Israel Carmi

The effect of the Haifa Bay power station on the adjacent dune aquifer

14:10-14:30

Kristina Eriksson Stenström

Preoperational levels of radiocarbon in the vicinity of the European Spallation Source (ESS), Lund, Sweden

14:30-14:50

Carley Crann

Tracking nuclear and fossil fuel CO₂ in southern Ontario (Canada) using radiocarbon on tree-ring and atmospheric samples

14:50-15:10

coffee break

Session 4

chair: A.J.Timothy Jull

15:10-15:30

Alicja Skiba

Application of the carbonaceous fraction of particulate matter and natural carbon isotopes for emission source apportionment in Krakow (Poland)

15:30-15:50

Barbara Sensuła

Biomonitoring of the industrial area: air pollutants accumulation in the pine foliage – a case study

15:50-16:30

Guaciara Dos Santos (invited speaker)

The forest hides treasures: Developing atmospheric post-AD 1950 high-precision ¹⁴C records using cellulose material from absolute calendar-dated tree rings across the Neotropical region

16:30-18:30

poster session

Wednesday 07 July 2021: Trees

Session 1

chair: Susan Trumbore

9:30-10:10	Fusa Miyake (invited speaker) Search for past SEP events using tree-ring ^{14}C data
10:10-10:30	Michael Dee Isotopic Evidence in Support of Grand Solar Minimum around 2300 cal BP
10:30-10:50	Helene Løvstrand Svarva Modelling the contribution of carbon sources in sub-annual ^{14}C measurements on tree rings over the 1963 bomb spike
10:50-11:10	Ivan Kontul' Tree-rings as archives of atmospheric pollution by fossil carbon dioxide: Bratislava case
11:10-11:30	coffee break

Session 2

chair: Fusa Miyake

11:30-12:10	Irka Hajdas ^{14}C "Bomb peak" and the onset of the Anthropocene
12:10-12:30	Agnieszka Stojanowska Air quality assessment based on aerosols deposited on bio-passive sampler (<i>Abies alba</i> needles)
12:30-12:50	Algirdas Pabedinskas Biosensors in ^{14}C contaminated environment: tree rings research and lake sediments analysis
12:50-13:10	coffee break



Wednesday 07 July 2021: Trees

Session 3

chair: Christine Hatte

13:10-13:30

Santiago Eduardo Ancapichun Hernandez

Radiocarbon bomb-peak signal in tree-rings from the tropical Andes register low latitude atmospheric dynamics in the Southern Hemisphere

13:30-13:50

Irina Panyushkina

Temporal incoherence of SN1054 signal in ^{14}C series from various tree-ring archives

13:50-14:30

A.J.Timothy Jull

Evidence for solar-flare, supernovae and other cosmic-ray events in the ^{14}C record in tree rings

14:30-16:15

concert

Thursday 08 July 2021: Climate

Session 1

chair: Quan Hua

9:30-10:10

Yusuke Yokoyama (invited speaker)

Compound specific, flow cytometry-based-pollen, and other radiocarbon environmental researches using a Single Stage Accelerator Mass Spectrometry at the Atmosphere and Ocean Research Institute, The University of Tokyo

10:10-10:30

Hong-Chun Li

AMS ^{14}C dating, C/N and $\delta^{13}\text{C}$ of plant species from peat mires: Something we should know for paleorecord reconstructions

10:30-10:50

Anna Agatova

Problems of constructing the Late Pleistocene radiocarbon chronology of natural events in tectonically active mountain terrains (by the example of the Russian Altai)

10:50-11:10

Nadine Budantseva

January air palaeotemperature for 28-21 cal. ka BP based on stable isotope composition of AMS radiocarbon dated syngenetic ice wedges at Seyakha site, Yamal Peninsula

11:10-11:30

coffee break

Thursday 08 July 2021: **Climate**

Session 2

chair: Natalia Piotrowska

11:30-11:50

Adrian Marciszak

The first radiocarbon dated leopard *Panthera pardus* (Linnaeus, 1758) from the Pleistocene of Poland

11:50-12:10

Alla Vasil'chuk

High-resolution stable isotope records reflect January air paleotemperature of 49-22 ka cal BP in Central Yakutia (applying AMS radiocarbon dated of Ice Wedges of the Batagay Yedoma)

12:10-12:10

Danuta J. Michczyńska

Can the probability density distributions of radiocarbon and luminescence dates refine our knowledge of paleoenvironmental changes during MIS 3-2?

12:30-12:50

Piotr Moska

Reinterpretation of the Late Glacial classic type localities compared to the new high resolution results from Polish part of European Sand Belt

12:50-13:10

Kita Chaves Damasio Macario

Local MRE on the Coast of Brazil: variations over the last millennia

13:10-14:10

coffee break



Thursday 08 July 2021: Soil and Peat

Session 3

chair: Piotr Moska

- | | |
|-------------|--|
| 14:10-14:50 | Susan Trumbore (invited speaker)
Constraining soil models with radiocarbon data: system age and transit time |
| 14:50-15:10 | Roman Nepop
Radiocarbon analysis of buried and surface soils for reconstructing the Neoglacial advances of alpine glaciers, SE Altai, Russia |
| 15:10-15:30 | Włodzimierz Margielewski
Towards the understanding of the present-day human impact on peatland deposits formed since the Late Glacial: a “retrospective” age - depth model of the Grel raised bog (Polish Inner Carpathians) |
| 15:30-15:50 | Botond Buró
New radiocarbon data from the paleosols of the Nyírség blown sand area, Hungary |
| 15:50-16:10 | coffee break |

Session 4

chair: Danuta J. Michczyńska

- | | |
|-------------|---|
| 16:10-16:30 | David Zal
Carbon dating of agricultural soils and further understanding the transport of CO ₂ gas using isotopes |
| 16:30-16:50 | Alexander Cherkinsky
¹⁴ C and stable carbon isotope composition of soil organic matter fractions in Ultisol profiles, Calhoun CZO, South Carolina USA. |
| 16:50-17:10 | Piotr Szwarczewski
The sedimentation rate of bottom sediments in the Salęt-Ruskowiejskie lakes complex and its climatic and anthropogenic conditions |
| 17:10-19:10 | poster session |

Friday 09 July 2021: Water Environment

Session 1

chair: Matthias Huels

9:30-9:50

Seiya Nagao

Seasonal variation of carbon isotope composition of particulate organic matter at a small and shallow lake, Kiba-gata during 2016-2019

9:50-10:10

Sanja Faivre

Establishing high resolution geochronology using algal rims in relative-sea level studies – Examples from the eastern Adriatic coast

10:10-10:30

Evelyn Keaveney

Carbon sources and sequestration: ^{14}C Ramped Pyrooxidation in aquatic samples

10:30-10:50

Jarmila Biskova

Freshwater reservoir effect variability of bohemian archaeological sites

10:50-11:10

Sofia Turchinskaia

Carbon and nitrogen isotopic composition in karst subterranean environments as an example of the Eastern Europe and the Caucasus caves.

11:10-11:30

coffee break

Session 2

chair: Evelyn Keaveney

11:30-11:50

Maria Ilie

^{14}C dating of sea shells for geomorphology studies

11:50-12:10

Aislinn Fox

Evaluating sources and cycling of particulate organic carbon in Baffin Bay: a $\Delta^{14}\text{C}$ and $\delta^{13}\text{C}$ approach



Friday 09 July 2021: Water Environment

12:10-12:30	Piotr Szwarczewski Record of environmental changes in the sediments filling the oxbow lakes (on selected examples from Vistula and Bug river vales).
12:30-12:50	Ellen Druffel Dissolved Organic Radiocarbon in the Pacific, West Indian and Southern Oceans
12:50-13:10	Christian B. Lewis Isotopic studies of refractory dissolved organic carbon in the global ocean reveal the influence of heterotrophic bacteria
13:10-14:10	lunch break

Session 4

14:10-14:25	A.J.Timothy Jull Publication and Proceedings
14:25-14:45	Bids for the next conference
14:45-14:50	Andrzej Rakowski Closing the Conference

Methods

- | | |
|---|--|
| <p>M1 The history of the brown bear <i>Ursus arctos</i> Linnaeus, 1758 in the Czech Republic
<i>Adrian Marciszak</i></p> | <p>M10 Problems of isotopic fractionation correction in ^{14}C applications
<i>Jacek Pawlyta</i></p> |
| <p>M2 Investigating Pattern Matching Techniques for the Calibration of Radiocarbon Measurements
<i>Andrea Scifo</i></p> | <p>M11 Radiocarbon calibration curves mixing and its influence on the chronology of Machupicchu and satellite settlements
<i>Jacek Pawlyta</i></p> |
| <p>M3 Development in AMS graphitization line in Dendrochronological laboratory at AGH-UST Krakow
<i>Andrzej Rakowski</i></p> | <p>M12 Testing the methods for determination of biocomponent contents in liquid fuels in the Gliwice Radiocarbon and Mass Spectrometry Laboratory.
<i>Jean Baptiste Baranyika</i></p> |
| <p>M4 ^{14}C origins and speciation within a nuclearized continental catchment : State of the art and outlook
<i>N. Bodereau</i></p> | <p>M13 Tests for the content of the ^{14}C isotope in tires and their pyrolysis products
<i>Komal Aziz Gill</i></p> |
| <p>M5 Sealed tube graphitization method at LMC-14, Gif sur Yvette (France) for environmental ^{14}C monitoring
<i>Emmanuelle Delqué-Kolic</i></p> | <p>M14 Intercomparison exercise on fuel samples for determination of biocontent ratio by ^{14}C Accelerator Mass Spectrometry
<i>Mihály Molnár</i></p> |
| <p>M6 Human presence in the Salapunku area (Cusco, Peru) based on recent radiocarbon evidence
<i>Dominika Sieczkowska</i></p> | <p>M15 Development of protocols for measuring anthropogenic radiocarbon in environmental studies on ECHO MICADAS at LSCE, Gif-sur-Yvette
<i>Nadine Tisnérat-Laborde</i></p> |
| <p>M7 Very small samples and sample representativeness: statistical approach and real example. What can be done to make the measurement representative of the sample natural heterogeneity?
<i>Christine Hatte</i></p> | <p>M16 Chronology of striated pottery in the eastern Baltic: a case study of river Daugava settlements
<i>Vanda Visocka</i></p> |
| <p>M8 The new sample preparation line for radiocarbon measurements at the GXNU Laboratory
<i>Hongtao Shen</i></p> | <p>M17 High-resolution radiocarbon dating of ivory
<i>Vojtech Valasek</i></p> |
| <p>M9 Search for the potential ^{14}C excursions in the Intcal/SHcal curves and data raw atmospheric C-14 time series
<i>Jacek Pawlyta</i></p> | <p>M18 Problems in the dating of slope sediments; case study in Serteyka River Valley (Eastern Europe)
<i>Wiktor Piech</i></p> |



Atmosphere & Anthropogenic

- A1** Carbon-14 measurements in Air Samples
Bommadeni Arun
- A2** Fossil fuel environmental contamination: a strategy using radiocarbon, n-alkanes, and algae
Carla Carvalho
- A3** Estimation of the contribution of fossil and non-fossil emissions in atmospheric aerosols from Ciudad Universitaria in Mexico City using Radiocarbon analysis.
Corina Solís
- A4** Possible drivers of fossil fuel CO₂ in the Metropolitan Area of Rio de Janeiro: A comparison analysis between ¹⁴CO₂ from Ipê Leaves and Socioeconomic Conditions
Guaciara M. Santos
- A5** Combined radio- and stable carbon isotope analyses for source identification of PM_{2.5} carbonaceous aerosol in Debrecen, Hungary
István Major
- A6** C-14 and other radionuclides in the environment at the Lithuanian border region before the start of the Belarusian nuclear power plant operation
Jonas Mazeika
- A7** Determination of the concentration of atmospheric carbon dioxide and its radiocarbon content in the southern region of Mexico City during the intensive burning of fireworks.
Manzano Zaira
- A8** Radiocarbon analysis of atmospheric methane: new setup and first monitoring results at three Swiss sites
Thomas Laemmel
- A9** C-14 study in the PM₁₀ aerosol around the Paks nuclear power plant
Virág Gergely

Trees

- T1** Abrupt increase of radiocarbon concentration in 993 CE in sub-annual tree rings from Kujawy near Cracow (SE Poland)
Andrzej Rakowski
- T2** Characteristics of Pine Needle Exposed to the Air Pollution Sources in Silesia – a case study
Barbara Sensuła
- T3** Anthropogenic pollution records in pine tree-rings: radiocarbon, stable isotopes and Basal Area Increment analysis - a case study
Barbara Sensuła
- T4** Complex study of the Miyake effect and reconstruction of paleoclimate changes during VIII-VII century BC, based on AMS and MS measurements in subfossil wood from Poland
Damian Wiktorowski
- T5** Growth assessment of native tree species from the southwestern Brazilian Amazonia by post-AD 1950 ¹⁴C analysis: Implications for dendroclimatological studies and atmospheric ¹⁴C reconstruction
Guaciara M. Santos
- T6** Application of Miyake effect in construction of absolute dendrochronological scale
Jacek Pawlyta
- T7** The potential for using rapid changes in radiocarbon content to accurately date floating pine chronologies from the Hallstatt period
Jacek Pawlyta
- T8** Bog pine and deciduous trees chronologies related to peat sequences stratigraphy of the Podemszczyzna peatland (Sandomierz Basin, South-Eastern Poland)
Włodzimierz Margielewski

Climate

- C1 Multi-proxy studies of the Late Glacial fluvio-aeolian succession in the type site Mierzyn, central Poland
Agnieszka Szymak
- C2 How detailed modelling of the biota is necessary when describing the carbon cycle?
David John
- C3 Holocene paleoclimate reconstruction based on high-resolution peat bog chronology and stable isotope results of Sphagnum cellulose, Mohos peat bog, Romania
Katalin Hubay
- C4 Absolute chronology of the pile-dwelling constructions at Seretya II site (Western Russia) and palaeoecological context
Marek Krąpiec
- C5 Multi-century stable oxygen isotope chronology from Austrian Alps
Marzena Kłusek
- C6 Temporal stability of climatic signal recorded by carbon, oxygen and hydrogen stable isotopes of tree rings cellulose – case study for Suwałki region
Sławomira Pawełczyk
- C7 Impact of climatic and anthropogenic factors on the composition of stable carbon isotopes in tree rings cellulose - a case study for the Sudeten, Tatra and Eastern Carpathians.
Sławomira Pawełczyk
- C8 Record of the climatic conditions variability during the Holocene in the stable Carbon and Nitrogen isotopes (a case study of Pacynka river valley)
Piotr Szwarczewski

Water Environment

- W1 Response of karst sediments to the atmospheric ^{14}C bomb peak
Andreja Sironić
- W2 Challenges and limitations of the Pb-210 dating method: Results for peats and lake sediments from the High Arctic region
Anna Cwanek
- W3 Marine reservoir effect in spermaceti, a wax obtained from the head of the sperm whale
Lucile Beck
- W4 Salgada Lagoon: An Overview of a Brazilian hypersaline lagoon environmental studies over the last 5000 years using radiocarbon dates corrections.
Carla Carvalho
- W5 Linking RC and trophic webs in karstic groundwater ecosystems in the Yucatán Peninsula, México.
Corina Solís
- W6 Identification of recycled organic matter in delta sediments using the dual isotopic composition of carbon ($\delta^{13}\text{C}$ and $\Delta^{14}\text{C}$): New data for the Rhône river delta
Dumoulin Jean-Pascal
- W7 Does fresh-water tufa have potential in paleoresearch?
Jadranka Barešić

poster list

3rd International Radiocarbon
in the Environment Conference
5-9 July 2021, Gliwice, Poland



Water Environment

- W8 Comparison of ^{14}C and OSL dating methods for reconstructing the history of a floodplain sediment series over 40.000 years (Jász-ság, Hungary)
Kertész Titanilla
- W9 Stratigraphy and AMS radiocarbon ages of the Karekare Swamp, Rarotonga, Cook Islands
Mitsuru Okuno
- W10 Effect of Marine Sediment on DOC Solubility and Radiocarbon Isotopes.
Niels Hauksson
- W11 Storage of groundwaters in flex-foil bags for ^{14}C analysis of dissolved inorganic carbon
Pauline Gulliver
- W12 Activity approximation as a way for modeling the age of peat sediments
Jarosław Sikorski
- W13 The development of Nasielna river valley during last 2000 years on the base of sedimentological, geophysical and archaeological data and radiocarbon datings
Piotr Szwarczewski
- W14 Reconstruction of the Nemunas delta development on the base of sedimentological, geophysical or topographical data and radiocarbon datings.
Piotr Szwarczewski

RE III

Methods

Atmosphere
& Anthropogenic

Trees

Climate

Soil & Peat

Water Environment

invited speakers



Ministry
of Education
and Science



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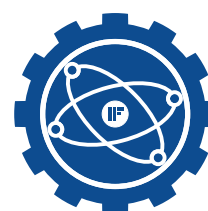


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