

**SUNDAY, SEPTEMBER 22<sup>nd</sup>**

**18.00 -21.00** Icebreaker and registration in Piazza Sant'Oronzo.

**MONDAY, SEPTEMBER 23<sup>rd</sup> - CASTELLO CARLO V**

**8.30.** Registration opens

**9.30-10.15-**Opening Ceremony

**10.15-10.50-**Inaugural Concert

Time (11.00-12.00)	Keynote speech	
Chairperson		
<b>11.00-12.00</b>	W. Kutschera	Reading and interpreting the isotope language

Time (12.00-13.00)	Session M1: Methods (machine and sample preparation)	
Chairpersons	M. Naudeau-M. Huels-A. Cherkinsky-P. Ascough-M. Krapiec	
<b>12.00-12.30</b>	E. Keaveney <i>Invited Talk</i>	Novel applications of the Ramped Pyroxidation technique.
<b>12.30-12.50</b>	L. Kattein	A new system for Ramped pyrolysis-oxidation- <sup>14</sup> C analysis of sediments: Proof of concept and cross-lab comparison
<b>12.50-13.10</b>	M. A. Bolandini	Organic matter dynamics in thaw slumps: insights from online ramped oxidation- <sup>14</sup> C analysis

**13.15-14.30-**Lunch

Time (14.30-15.50)	Session M1: Methods (machine and sample preparation)	
Chairpersons	M. Naudeau-M. Huels-A. Cherkinsky-P. Ascough-M. Krapiec	
<b>14.30-14.50</b>	M. Fedi	The new sample preparation line in Italy for <sup>14</sup> C-AMS measurements on the carbonaceous fractions of atmospheric aerosol
<b>14.50-15.10</b>	H. Meijer	Inter-laboratory comparison for the <sup>14</sup> C-based measurement of the biogenic carbon fraction in biogas and blends of biogas and natural gas
<b>15.10-15.30</b>	R. Jou	Handling liquid biofuels samples for biogenic fraction determination at LAC-UFF
<b>15.30-15.50</b>	N. Tisnérat-Laborde	How to measure "active" samples without contaminating laboratory equipment

Time (16.00-16.40)	Session M1: Methods (machine and sample preparation)	
Chairpersons	M. Naudeau-M. Huels-A. Cherkinsky-P. Ascough-M. Krapiec	
<b>16.00-16.20</b>	M. Ochocki	Acid-Base-Acid with Stepped Combustion (ABA-SC) as a Pretreatment Method for Radiocarbon Dating of Charcoal
<b>16.20-16.40</b>	K. Nakajima	Pollen separation with flow cytometry: an emerging method for radiocarbon dating

**16.40-17.00-Coffee break**

Time (17.00-18.00)	Session P1: Past environment and climate	
Chairpersons	E. Boaretto-Y. Kuzmin-I. Hajdas-I. Svetlik-A- JT Jull	
17.00-17.20	A. Rajoriya	Radiocarbon dating, stable and strontium isotope data of human cist-burials from Spiti valley (Himachal Pradesh, India): implications for palaeo-diets, origin and ecology of human settlements in Trans-Himalayas
17.20-17.40	J. Pilch	the Bølling-Older dryas-allerød transition in multi-proxy paleo-record of two neighbouring landslide fens, kotoń and klaklowo, the outer western carpathians, s poland - regional similarities and local differences in plant succesion.
17.40-18.00	W. Margielewski	Palaeohydrological changes of polish peatlands during the holocene, inferred from subfossil pine (pinus sylvestris) and oak (quercus sp.) dendrochronology and peat multiproxy analysis

**TUESDAY, SEPTEMBER 24<sup>th</sup>**

Time (08.30-10.40)	Session A1: Atmosphere and terrestrial environment	
Chairpersons	L. Wacker/Q. Hua/N. Piotrowska	
08.30-09.00	F. Marzaioli invited talk	Lesson learned from 1055 AD <sup>14</sup> C anomaly: integration of experimental data with analysis and modelling tools to infer possible causes.
09.00-09.20	L. Wacker	Atmospheric <sup>14</sup> C concentrations over the last 5600 years in annual resolution
09.20-09.40	Q. Hua	Sources of methane emissions from wetland tree stems
09.40-10.00	E. Boaretto	The carbon isotopes in Israel trees in today and in past environment: discovering of the suitable archives for paleoclimatic reconstruction.
10.00-10.20	M. Huels	Carbon isotopes ( <sup>14</sup> C, <sup>13</sup> C) of Gatersleben plant tissues (Triticum aestivum L., Glycine max (L)) grown during the bomb spike.
10.20-10.40	M. Seiler	Tree-ring <sup>14</sup> C origin seen through the bombspike magnifying glass

**10.40-11.00-Coffee break**

Time (11.00-12.40)	Session M1: Methods (machine and sample preparation)	
Chairpersons	M. Naudeau-M. Huels-A. Cherkinsky-P. Ascough-M. Krapiec	
11.00-11.20	Daniele De Maria	Towards novel applications for high throughput AMS gas measurements
11.20-11.40	U. Ramsperger	LEA: a new compact 50 kv AMS system under a prolonged performance evaluation
11.40-12.10	Bin Yang	Development of an automated processing line for the extraction of dissolved inorganic carbon from underground water for radiocarbon analysis
12.10-12.40	Tudyka	μgraphiline: a high-throughput, low-maintenance, fully automated <sup>14</sup> C graphitization system

**12.45-14.00-Lunch**

Time (14.00-15.40)	Session P1: Past environment and climate	
Chairpersons	E. Boaretto-Y. Kuzmin-I. Hajdas-I. Svetlik-A- JT Jull	
14.00-14.20	Daniel Loponte	Radiocarbon dating and bayesian modeling of pre-columbian occupations in the paraná delta, argentina
14.20-14.40	Simone Mantellini	Late medieval samarkand oasis: new evidence from the site of kafir kala
14.40-15.00	Natalia Piotrowska	High resolution <sup>14</sup> C and OSL chronology of the aeolian–soil succession in the Łaskarzew site, East Poland.
15.00-15.20	Alexander Cherkinsky	Comparative <sup>14</sup> C Analysis of Different Materials in Lake Sediments
15.20-15.40	Y. Kuzmin	Spatiotemporal patterns of existence and extinction for woolly mammoth in Siberia in the last 50,000 years

Time (15.40-16.40)	Session P1: Past environment and climate	
Chairpersons	E. Boaretto-Y. Kuzmin-I. Hajdas-I. Svetlik-A- JT Jull	
15.40-16.00	J. Palli	Radiocarbon dating and tree longevity: state of the art with a focus on Italian case studies
16.00-16.20	Nadine Budantseva	AMS radiocarbon age of the Holocene ice wedges near Yarynskaya settlement and reconstructed mean January paleotemperature in the north-eastern part of Europe
16.20-16.40	Alla Vasil'chuk	Past environment and January paleotemperature during upper sand formation of Batagay megaslump

16.40-17.00-Coffee break

Time (17.00-18.00)	Poster Session I
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Time (18.00-19.00)	Special Lecture	
18.00-19.00	P. Arthur	“What’s in a wall? A Brief story of Lecce’s medieval fortifications”

Time (19.00-20.00)	Lecce City Tour
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**WEDNESDAY, SEPTEMBER 25<sup>th</sup>**

Time 8.30	<b>Bus transfer to Hotel Costa Brada-Gallipoli</b> Meeting point: Main gate of the Castello Carlo V
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Time (10.00-11.00)	Special session: Alternative Methods to AMS	
Chairpersons	W. Kutschera	
10.00-10.20	Saverio Bartalini	The impact of <sup>14</sup> C quantification by Saturated-absorption Cavity Ring-down (SCAR) spectroscopy for environmental applications.
10.20-10.40	Wei Jiang	Atom Trap Trace Analysis of <sup>41</sup> Ca
10.40-11.00	Tamás Varga	A novel, laser-based saturated-absorption cavity ring-down technology for precise biobased content analysis of plastic samples

**11.00-11.30**-Coffee break

Time (11.30-13.10)	Marine M1: Marine environment	
Chairpersons	B. Resenheim-C. Hatté-J.Baresic	
<b>11.30-11.50</b>	S. Lindauer	Marine Shells as indicators for environmental changes in SE Arabia
<b>11.50-12.10</b>	B. M. Netto	Age discrepancies among co-existing planktonic foraminifera: species, shell size and sample size problems
<b>12.10-12.30</b>	Naiana Dias	Impact of oil spill on mangrove sediments: study of $\Delta^{14}\text{C}$ and $\delta^{13}\text{C}$ in the laboratory
<b>12.30-12.50</b>	Andrea Göhring	Sea spray and physiologically induced effects on $^{14}\text{C}$ composition in modern coastal plants uncovered by a greenhouse experiment
<b>12.50-13.10</b>	Maria Zucchi	Development of a protocol to measure radiocarbon by AMS in water samples at LAPAC-UFBA, Brazil

**13.15-14.30**-Lunch

Time (14.30-17.30)	Discussions OTB
<b>17.30-20.30</b>	<b>Gallipoli Old City tour</b>
<b>20.30</b>	<b>Return to Lecce</b>

**THURSDAY, SEPTEMBER 26<sup>th</sup>**

Time (08.30-10.40)	Session A2: Anthropogenic effects	
Chairpersons	M. Molnar/P. Povinec/J. Olsen/A. Rakowsky	
<b>08.30-09.00</b>	S. Hammer <i>Invited Talk</i>	Ingeborg Levin's Legacy in Atmospheric $^{14}\text{CO}_2$ Research: A Retrospective of Her Scientific Life
<b>09.00-09.20</b>	I. Hajdas	Bomb Peak Fading – a memoir written in leaves
<b>09.20-09.40</b>	M. Molnar	Advances in atmospheric methane $^{14}\text{C}$ analyses at HEKAL AMS Facility
<b>09.40-10.00</b>	S. Bjarheim	The potential of blue mussel shells for retrospective analysis of marine $^{14}\text{C}$ discharges from nuclear power plants
<b>10.00-10.20</b>	K. Eriksson Stenström	Radiocarbon in the marine environment of Ringhals nuclear power plant, Sweden
<b>10.20-10.40</b>	K. Silva	Radiocarbon dating and the Schreger pattern as essential tools in combating elephant ivory trafficking in Brazil

**10.40-11.00**-Coffee break

Time (11.00-13.00)	Session A1: Atmosphere and terrestrial environment	
Chairpersons	L. Wacker/Q. Hua/N. Piotrowska	
<b>11.00-11.20</b>	P. Ascough	Insights into the Residence Time and Stability of Soil Organic Carbon through Ramped Oxidation and Radiocarbon Analysis
<b>11.20-11.30</b>	C. Heusser	Molecular-level Soil Carbon Turnover Unveiled with Amino Acid-Specific $^{14}\text{C}$
<b>11.30-11.50</b>	C. S. Hadden	Radiocarbon age offsets in post-bomb terrestrial snails from south Florida, USA
<b>11.50-12.10</b>	T. M. Y. Rhyner	Radiocarbon signatures in Swiss Rivers under hydrological extremes

<b>12.10-12.30</b>	E.Zazovskaya	Radiocarbon age and properties of organic matter of supraglacial organomineral formations
<b>12.30-12.50</b>	L. Scott Cummings	Dead Carbon in Living Individuals

**13.00-14.00-Lunch**

<b>Time (14.00-16.00)</b>	<b>Session A1: Atmosphere and terrestrial environment</b>	
Chairpersons	L. Wacker/Q. Hua/N. Piotrowska	
<b>14.00-14.20</b>	A. Smith	Using ANSTO's micro- <sup>14</sup> C capability to improve understanding of the atmospheric methane budget
<b>14.20-14.40</b>	I. Kontul	Seasonal variation of fossil and non-fossil fractions of carbonaceous aerosols in an urban area of Slovakia
<b>14.40-15.00</b>	Z. Niu	Temporal and vertical measurements of atmospheric CO <sub>2</sub> and <sup>14</sup> CO <sub>2</sub> at the Northern foot of the qinling mountains in China
<b>15.00-15.20</b>	P. Ciffroy	Combining microscopic and macroscopic diffusion theories to evaluate <sup>14</sup> C transfers at the water-atmosphere interface downstream of a nuclear plant
<b>15.20-15.40</b>	I. Chanca	Estimation of the fossil-fuel fraction of CO <sub>2</sub> measured in Paris based on radiocarbon, and co-emitted species (NO <sub>x</sub> , CO, BC)
<b>15.40-16.00</b>	A. Panzitta/ D. Sanghez	Comparative study of waste analysis methods for biogenic fraction quantification in waste-to-energy plants

**16.00-16.30-Coffee break**

<b>Time (16.30-17.30)</b>	<b>Poster Session II</b>
<b>Time (17.30-19.30)</b>	<b>Transfer to Brindisi-Visit of CEDAD laboratories</b>
<b>Time (20.00-23.00)</b>	<b>CONFERENCE DINNER AT CASTELLO MONACI</b>

**FRIDAY, SEPTEMBER 27<sup>th</sup>**

<b>Time (08.30-10.40)</b>	<b>Session T1: Tropical Environments</b>	
Chairpersons	K. Macario	
<b>08.30-09.00</b>	C. Carvalho <i>Invited Talk</i>	Biomonitoring Fossil Fuel Contamination on an Eutrophic Coastal Estuary: The RADICAL Project
<b>09.00-09.20</b>	K. Macario	Itaipu Region in Niterói, Brazil: Cultural and Natural Heritage Under Threat from Land Speculation
<b>09.20-09.40</b>	I. Chanca	How long does carbon stay in a near-pristine central amazon forest? an empirical estimate with radiocarbon
<b>09.40-10.00</b>	G. M. Santos	Lower latitudes atmospheric post-AD 1950 high-precision tree ring <sup>14</sup> C records: challenges and surprises
<b>10.00-10.20</b>	J. Griffin	Evaluating a simplified α-cellulose extraction procedure on pantropical woods via FTIR characterization for use in atmospheric <sup>14</sup> C reconstructions

<b>10.20-10.40</b>	J. Sarpa	Radiocarbon and isotopic analysis of wetland soil's of litoral North of Bahia, Brasil
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**10.40-11.00**-Coffee break

<b>Time (11.00-12.30)</b>	<b>Marine M1: Marine environment</b>	
Chaipersons	B. Resenheim-C. Hatté-J.Baresic	
<b>11.00-11.20</b>	M. Ruben	The age predicament in microbial organic matter degradation
<b>11.20-11.30</b>	B. Philippsen	Human-environmental interactions in a prehistoric fjord
<b>11.30-11.50</b>	N. Wang	Radiocarbon character in amphipod exoskeletons from hadal trenches
<b>11.50-12.10</b>	M. Al-Sid-Cheikh	Nanoplastic Uptake Dynamics in Mussels: Unveiling first Sub-ppb toxicokinetics
<b>12.10-12.30</b>	H Grotheer	High resolution mapping of DIC, DOC and POC radiocarbon distribution in the Northwest African Upwelling system off Mauritania

<b>Time (12.30-13.00)</b>	<b>Summary and closing remarks</b>	
<b>12.30-13.00</b>	T. AJ Jull	Summary and closing remarks