

X International Antarctic Conference dedicated to the 25th Anniversary of raising of the National Flag of Ukraine at Ukrainian Antarctic Akademik Vernadsky station May 11–13, 2021 Kyiv, Ukraine

X Міжнародна Антарктична конференція, присвячена 25-річчю підняття Державного прапора України на Українській антарктичній станції "Академік Вернадський" м. Київ, Україна 11-13 травня 2021 р.

May 11, 2021 (Tuesday) 11.45 – 16.20 Kyiv time zone (8.45 – 13.20 UTC)

#### **ONLINE CONFERENCE**

Welcome and roll call	11:45 - 12:00 Kyiv
	(08.45-09.00 UTC)

#### OPENING. PLENARY MEETING

Chairperson: Evgen Dykyi, Andriy Fedchuk

Welcome Addresses	12:00-12:40 Kyiv
	(09.00-09.40 UTC)
Evgen Dykyi	12:00-12:10
Director of the State Institution National Antarctic Scientific Center, Ministry of Education and	(09.00-09.10 UTC)
Science of Ukraine	(09.00-09.10 010)
Serhiy Shkarlet	12:10-12:20
Minister of Education and Science of Ukraine	(09.10-09.20 UTC)
Roman Hryschuk	12:20-12:30
Member of the Committee of Education, Science and Innovation, the Verkhovna Rada of Ukraine	(09.20-09.30 UTC)
(Ukrainian Parliament)	(09.20-09.30 01C)
<u>Vitalii Tsymbaliuk</u>	12:30-12:40
Chargé d'Affaires of Ukraine to the Republic of Chile	(09.30-09.40 UTC)
Plenary reports:	12:40-16:20
	(09.40-13.20 UTC)
1 Azizan Abu Samah <sup>1</sup> , Nasaruddin Rahman <sup>2</sup>	
Founding Member, Sultan Mizan Antarctic Research Foundation, Kuala Lumpur, Malaysia;	
<sup>2</sup> Chief Executive Officer, Sultan Mizan Antarctic Research Foundation, Kuala Lumpur,	12:40-13:00
Malaysia	(09.40-10.00 UTC)
MALAYSIAN STRATEGIES IN SUSTAINING POLAR RESEARCH: ROLE OF SULTAN	
MIZAN ANTARCTIC RESEARCH FOUNDATION	

2	Peter Convey	12.00.12.20
	British Antarctic Survey, Natural Environment Research Council, United Kingdom	13:00-13:20
	ISLANDS IN THE ICE: THE PAST, PRESENT AND FUTURE OF ANTARCTICA'S	(10.00-10.20 UTC)
	UNIQUE TERRESTRIAL BIODIVERSITY	
i	Y.M Yampolski <sup>1</sup> , O.V. Koloskov <sup>1,2</sup> , O.V. Budanov <sup>1</sup>	
	<sup>1</sup> Institute of Radio Astronomy of National Academy of Sciences of Ukraine, Kharkiv,	
	<sup>2</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	13:20-13:40
	Ukraine, Kyiv	(10.20-10.40 UTC)
	LONG-TERM INVESTIGATIONS OF GLOBAL LIGHTNING ACTIVITY FROM THE	
	UKRAINIAN ANTARCTIC STATION (REVIEW)	
	CURRENT STATE AND PERSPECTIVE ON ANTARCTIC RESEARCH	12 40 14 00
	I.A. Kozeretska <sup>1</sup> , I.Yu. Parnikoza <sup>1,2</sup> , D, Pishniak <sup>1</sup> , V.M. Malanchuk <sup>1</sup> , E.O. Dykyi <sup>1</sup>	13:40-14:00
	<sup>1</sup> State Institution National Antarctic Scientific Center Ministry of Education and Science of	(10.40-11.00 UTC)
	Ukraine, Kyiv. Ukraine	
	<sup>2</sup> Institute of Molecular Biology and Genetics, National Academy of Sciences of Ukraine	
	A.P. Fedchuk, V.V. Savchenko	
	State Institution National Antarctic Scientific Center, Kyiv, Ukraine	14:00-14:20
	THE ROLE OF AKADEMIK VERNADSKY STATION IN THE DEVELOPMENT OF	(11.00-11.20 UTC)
	UKRAINE IN THE ANTARCTIC TREATY SYSTEM	(11.00 11.20 010)
;	I.Yu. Parnikoza <sup>1,2</sup> , H.V. Yevchun <sup>1</sup> , A.P. Fedchuk <sup>1</sup>	
	State Institution National Antarctic Scientific Center, Ministry of Education and Science of	
	Ukraine, Kyiv	
	<sup>2</sup> Institute of Molecular Biology and Genetics, National Academy of Sciences of Ukraine, Kyiv	14:20-14:40
	SYSTEMATIC CONSERVATION PLANNING FOR THE NEW PROPOSED	(11.20-11.40 UTC)
	ANTARCTIC SPECIALLY PROTECTED AREA "ARGENTINE ISLANDS AND KYIV	
_	PENINSULA REGION"	
	D.V. Cheberkus	
	State Institution National Antarctic Scientific Center, Ministry of Education and Science of	14:40-15:00
	Ukraine, Kyiv	(11.40-12.00 UTC)
	BIBLIOMETRIC ANALYSIS OF UKRAINIAN ANTARCTIC RESEARCH PROGRAM	()
	2011-2020	
	V.M. Malanchuk, O.V. Denysiuk, O.M. Pnyovska	
	State Institution National Antarctic Scientific Center, Ministry of Education and Science of	15:00-15:20
	Ukraine, Kyiv	(12.00-12.20 UTC)
	OPTIMIZATION OF EDITORIAL AND PUBLISHING PROCESS OF SCIENTIFIC	(12.00 12.20 010)
	PROFESSIONAL EDITION "UKRAINIAN ANTARCTIC JOURNAL"	
)	SR. Zhang <sup>1</sup> , A.J. Coster <sup>1</sup> , L.P. Goncharenko <sup>1</sup> , P.J. Erickson <sup>1</sup> , E. Aa <sup>1</sup> , A.V. Zalizovski <sup>2,3</sup> ,	
	A.V. Koloskov <sup>2,4</sup> , Y.M. Yampolski <sup>2</sup> , E.M. Zanimonsky <sup>2</sup> , T. Dang <sup>5</sup> , J. Lei <sup>5</sup> , W. Wang <sup>6</sup>	
	<sup>1</sup> Haystack Observatory, Massachusetts Institute of Technology, Westford, MA, USA	
	<sup>2</sup> Institute of Radio Astronomy of NAS of Ukraine, Kharkiv	
	<sup>3</sup> Space Research Centre of Polish Academy of Sciences, Warsaw, Poland	15:20-15:40
	<sup>4</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	(12.20-12.40 UTC)
	Ukraine, Kyiv	(12.20-12.40 UIC)
	<sup>5</sup> CAS Key Laboratory of Geospace Environment, University of Science and Technology of	
	China, Hefei, China	
	<sup>6</sup> High Altitude Observatory, National Center for Atmospheric Research, Boulder, CO, USA	
	GEOSPACE IMPACT OF THE 2021 SOLAR ECLIPSES IN POLAR REGIONS	
0	Ari S. Friedlaender	
	Institute for Marine Sciences, Department of Ocean Sciences, University of California Santa	
	Cruz, USA	15:40-16:00
	FORAGING ECOLOGY AND POPULATION DEMOGRAPHY OF RECOVERING	(12.40-13.00 UTC)
	HUMPBACK WHALES AROUND THE ANTARCTIC PENINSULA: A MULTI-	, /
	NATIONAL, COLLABORATIVE RESEARCH PROGRAM	
1	D. Bromwich	
- 1	The Ohio State University, Ohio, USA	
	AN OVERVIEW OF THE YEAR OF POLAR PREDICTION IN THE SOUTHERN	16:00-16:20
	HEMISPHERE (YOPP-SH) AND ITS ACHIEVEMENTS	(13.00-13.20 UTC)

May 12, 2021 (Wednesday) 09.00 – 18.40 Kyiv time zone (06.00 – 15.40 UTC)

#### LIFE SCIENCES SESSION

# Chairpersons: Ivan Parnikoza, Iryna Kozeretska

1	S.A. Ahmad <sup>1</sup> , C. Gomez-Fuentes <sup>2</sup> , A. Zulkharnain <sup>3</sup> , P. Convey <sup>4</sup> <sup>1</sup> Department of Biochemistry, Faculty of Biotechnology and Biomolecular Sciences, Universiti Putra Malaysia, Selangor, Malaysia <sup>2</sup> Department of Chemical Engineering, Universidad de Magallanes, Punta Arenas, Chile <sup>3</sup> Department of Bioscience and Engineering, College of Systems Engineering and Science, Shibaura Institute of Technology, Saitama, Japan <sup>4</sup> British Antarctic Survey, NERC, Cambridge, UK  THE APPLICATION OF ANTARCTIC MICROORGANISM ON HYDROCARBON BIOREMEDIATION PROCESS	<mark>9:00-9:20</mark> (06.00-06.20 UTC)
2	S.U. Aminu <sup>1</sup> , F. Merican <sup>1</sup> , W.O. Wan Maznah <sup>1</sup> , P. Broady <sup>2</sup> , P. Convey <sup>3</sup> <sup>1</sup> School of Biological Sciences, Universiti Sains Malaysia, Penang, Malaysia <sup>2</sup> School of Biological Sciences University of Canterbury New Zealand <sup>3</sup> British Antarctic Survey, NERC, Cambridge, UK  ANTARCTIC CYANOBACTERIA RESPONSE TO SALT STRESS	<mark>9:20-9:40</mark> (06.20-06.40 UTC)
3	S. Darham <sup>1</sup> , S.A. Ahmad <sup>1</sup> , A. Zulkharnain <sup>2</sup> , S. Sabri <sup>3</sup> , C. Gomez-Fuentes <sup>4</sup> , K.A. Khalil <sup>5</sup> , P. Convey <sup>6</sup> <sup>1</sup> Department of Biochemistry, Faculty of Biotechnology and Biomolecular Sciences, Universiti Putra Malaysia, Selangor, Malaysia <sup>2</sup> Department of Bioscience and Engineering, College of Systems Engineering and Science, Shibaura Institute of Technology, Saitama, Japan <sup>3</sup> Department of Microbiology, Faculty of Biotechnology and Biomolecular Sciences, Universiti Putra Malaysia, Selangor, Malaysia <sup>4</sup> Department of Chemical Engineering, Universidad de Magallanes, Punta Arenas, Chile <sup>5</sup> School of Biology, Faculty of Applied Sciences, Universiti Teknologi MARA, Selangor, Malaysia <sup>6</sup> British Antarctic Survey, NERC, Cambridge, UK  STATISTICAL OPTIMISATION OF MOLYBDENUM REDUCTION USING PSYCHROTOLERANT MARINE BACTERIA ISOLATED FROM ANTARCTICA	<mark>9:40-10:00</mark> (06.40-07.00 UTC)
4	R. Radzi <sup>1</sup> , P. Broady <sup>2</sup> , P. Convey <sup>3</sup> , W. M. W. Omar <sup>1</sup> , F. Merican <sup>1</sup> <sup>1</sup> School of Biological Science, Universiti Sains Malaysia, Penang, Malaysia <sup>2</sup> Biological Science, University of Canterbury, Christchurch, New Zealand <sup>3</sup> British Antarctic Survey, NERC, Cambridge, United Kingdom  DIVERSITY OF TERRESTRIAL CYANOBACTERIA FROM SELECTED HABITATS ON SIGNY ISLAND, SOUTH ORKNEY ISLANDS, ANTARCTICA	10:00-10:20 (07.00-07.20 UTC)
5	A.F.A. Roslee <sup>1</sup> , S.A. Ahmad <sup>1</sup> , C. Gomez-Fuentes <sup>2</sup> , A. Zulkharnain <sup>3</sup> , N.A. Shaharuddin <sup>1</sup> , K.A. Khalil <sup>4</sup> , P. Convey <sup>5</sup> <sup>1</sup> Department of Biochemistry, Faculty of Biotechnology and Biomolecular Sciences, Universiti Putra Malaysia, Selangor, Malaysia <sup>2</sup> Department of Chemical Engineering, Universidad de Magallanes, Punta Arenas, Chile. <sup>3</sup> Department of Bioscience and Engineering, College of Systems Engineering and Science, Shibaura Institute of Technology, Saitama, Japan <sup>4</sup> School of Biology, Faculty of Applied Sciences, Universiti Teknologi MARA, Selangor, Malaysia. <sup>5</sup> British Antarctic Survey, NERC, Cambridge, United Kingdom	<mark>10:20-10:40</mark> (07.20-07.40 UTC)

	GROWTH OPTIMISATION AND KINETIC PROFILING OF DIESEL	
	GROWTH OPTIMISATION AND KINETIC PROFILING OF DIESEL BIODEGRADATION BY A COLD–ADAPTED BACTERIAL CONSORTIUM ISOLATED FROM TRINITY PENINSULA, ANTARCTICA	
6	K. Sato <sup>1</sup> , S.A. Ahmad <sup>2</sup> , A. Zulkharnain <sup>1</sup>	
	<sup>1</sup> Department of Bioscience and Engineering, College of Systems Engineering and Science,	
	Shibaura Institute of Technology, Saitama, Japan	10.40.11.00
	<sup>2</sup> Department of Biochemistry, Faculty of Biotechnology and Biomolecular Sciences, Universiti	10:40-11:00
	Putra Malaysia, Selangor, Malaysia	(07.40-08.00 UTC)
	ISOLATION OF POLYLACTIC ACID (PLA)-DEGRADING BACTERIUM FROM	
	ANTARCTIC SOIL	
7	K.N.M. Zahri <sup>1</sup> , S.A. Ahmad <sup>1</sup> , S. Sabri <sup>2</sup> , A. Zulkharnain <sup>3</sup> , C. Gomez-Fuentes <sup>4</sup> , K.A. Khalil <sup>5</sup> , P.	
	Convey <sup>6</sup>	
	<sup>1</sup> Department of Biochemistry, Faculty of Biotechnology and Biomolecular Sciences, Universiti	
	Putra Malaysia, Selangor, Malaysia	
	<sup>2</sup> Department of Microbiology, Faculty of Biotechnology and Biomolecular Sciences, Universiti	
	Putra Malay-sia, Selangor, Malaysia.	
	<sup>3</sup> Department of Bioscience and Engineering, College of Systems Engineering and Science,	11:00-11:20
	Shibaura Institute of Technology, Saitama, Japan.	(08.00-08.20 UTC)
	<sup>4</sup> Department of Chemical Engineering, Universidad de Magallanes, Punta Arenas, Chile	
	<sup>5</sup> School of Biology, Faculty of Applied Sciences, Universiti Teknologi MARA, Selangor,	
	Malaysia.	
	<sup>6</sup> British Antarctic Survey, NERC, Cambridge, UK	
	BIODEGRADATION OF WASTE CANOLA OIL (WCO) AND PURE CANOLA OIL (PCO)	
	BY AN ANTARCTIC BACTERIAL COMMUNITY	
8	N.N. Zakaria <sup>1</sup> , S.A. Ahmad <sup>1</sup> , C. Gomez-Fuentes <sup>2</sup> , A. Zulkharnain <sup>3</sup> , S. Sabri <sup>4</sup> , N.A.	
	Shaharuddin <sup>5</sup> , P. Convey <sup>6</sup>	
	<sup>1</sup> Department of Biochemistry, Faculty of Biotechnology and Biomolecular Sciences, Universiti	
	Putra Malaysia, , Selangor, Malaysia	
	<sup>2</sup> Department of Chemical Engineering, Universidad de Magallanes, Punta Arenas, Chile.	
	<sup>3</sup> Department of Bioscience and Engineering, College of Systems Engineering and Science,	11:20-11:40
	Shibaura Institute of Technology, Saitama, Japan	(08.20-08.40 UTC)
	<sup>4</sup> Department of Microbiology, Faculty of Biotechnology and Biomolecular Sciences, Universiti	
	Putra Malaysia, Selangor, Malaysia	
	<sup>5</sup> British Antarctic Survey, NERC, Cambridge, UK	
	HYDROCARBON-DEGRADING BACTERIAL COMMUNITY PRESENT IN NON-	
	CONTAMINATED ANTARCTIC SEAWATER	
9	Syazana Zaki <sup>1</sup> , Faradina Merican <sup>1</sup> , Narongrit Muangmai <sup>2</sup> , Peter Convey <sup>3</sup> , Paul Broady <sup>4</sup>	
	<sup>1</sup> School of Biological Science, Universiti Sains Malaysia, Penang, Malaysia	
	<sup>2</sup> Department of Fishery Biology, Faculty of Fisheries, Kasetsart University, Chatuchak,	11:40-12:00
	Bangkok, Thailand  3 Paritish Automatic Surgery, NEBC, Cambridge, United Vinedom	
	<sup>3</sup> British Antarctic Survey, NERC, Cambridge, United Kingdom <sup>4</sup> Selvest of Ristories Sciences, University of Cantonbury, Christopweek, New Zeeland	(08.40-09.00 UTC)
	<sup>4</sup> School of Biological Sciences, University of Canterbury, Christchurch, New Zealand THE FIRST DISCOVERY OF TOXIN PRODUCING WILMOTTIA MURRAYI FROM	
	CRYOPRESERVED ANTARCTIC CYANOBACTERIAL MATS	
10	K. Subramaniam <sup>1</sup> , S.A. Ahmad <sup>1</sup> , N.A. Shaharuddin <sup>1</sup> , A. Zulkharnain <sup>2</sup> , K.A. Khalil <sup>3</sup> , P. Convey <sup>4</sup>	
10	<sup>1</sup> Department of Biochemistry, Faculty of Biotechnology and Biomolecular Sciences, Universiti	
	Putra Malaysia, Selangor, Malaysia	
	<sup>2</sup> Department of Bioscience and Engineering, College of Systems Engineering and Science,	
	Shibaura Institute Technology, Saitama, Japan	12:00-12:20
	<sup>3</sup> Department of Biomolecular Sciences, Faculty of Applied Sciences, Universiti Teknologi	(09.00-09.20UTC)
	MARA, Selangor, Malaysia	(53.55 53.25 61 6)
	<sup>4</sup> British Antarctic Survey, NERC, Cambridge, UK	
	DEVELOPMENT OF A DEFINED MIXED CULTURE (DMC) SYSTEM FOR EFFECTIVE	
	REMEDIATION OF PHENOL AT LOW TEMPERATURE	
11	N. Mohamad-Fauzi <sup>1,2,4</sup> , H.J. Wong <sup>2,3</sup> , H. Goh <sup>5</sup> , J. Smykla <sup>6</sup> , S.A. Alias <sup>2,4</sup>	
	<sup>1</sup> Institute of Biological Sciences, Universiti Malaya, Kuala Lumpur, Malaysia	
	<sup>2</sup> Institute of Ocean & Earth Sciences, Institute for Advanced Studies, Universiti Malaya, Kuala	
	Lumpur, Malaysia	10.00.10.40
	<sup>3</sup> Institute for Advanced Studies, Universiti Malaya, Kuala Lumpur, Malaysia	12:20-12:40
	<sup>4</sup> National Antarctic Research Centre, Institute for Advanced Studies, Universiti Malaya, Kuala	(09.20-09.40 UTC)
	Lumpur, Malaysia	
	<sup>5</sup> Institute of Systems Biology, Universiti Kebangsaan Malaysia, Selangor Darul Ehsan,	
	Malaysia	

	<sup>6</sup> Institute of Nature Conservation, Polish Academy of Sciences, Kraków, Poland	
	TRANSCRIPTIONAL RESPONSE IN POLAR PSEUDOGYMNOASCUS SPP. SOIL	
	FUNGI FOLLOWING THERMAL CHALLENGE	
12	M. Rizman-Idid, H.J. Wong <sup>2</sup> , N. Mohamad-Fauzi, P. Convey, J. Smykla, S.A. Alias	
	Institute of Ocean and Earth Sciences, University of Malaya, Kuala Lumpur, Malaysia	<b>12:40-13:00</b>
	MOLECULAR IDENTIFICATION OF <i>PSEUDOGYMNOASCUS</i> SPP. ISOLATED FROM	(09.40-10.00 UTC)
	ARCTIC AND ANTARCTIC REGIONS	` '
13	C.M.V.L Wong <sup>1</sup> , N.A Yusof <sup>1</sup> , A.M.A Murad <sup>2</sup> , F.D. Abu Bakar <sup>2</sup> , N.M. Mahadi <sup>3</sup> , A.Y.A	
10	Rahman <sup>4</sup> , N. Zainuddin, N. Najimudin <sup>4</sup>	
	<sup>1</sup> Biotechnology Research Institute, Universiti Malaysia Sabah, Jalan UMS, Sabah, Malaysia	
	<sup>2</sup> School of Biosciences and Biotechnology, Faculty of Science and Technology, Universiti	13:00-13:20
	Kebangsaan Malaysia, Selangor, Malaysia	(10.00-10.20 UTC)
	<sup>3</sup> Malaysia Genome Institute, Selangor Darul Ehsan, Malaysia	· · ·
	<sup>4</sup> School of Biological Sciences, Universiti Sains Malaysia, Penang, Malaysia	
	MOLECULAR CHAPERONES HELP ANTARCTIC PSYCHROPHILIC YEAST,	
	Glaciozyma antarctica PI12 TO COPE WITH HEAT STRESS	
14	Nur Hidayu Syuhada <sup>1</sup> , Paul A. Broady <sup>2</sup> , Peter Convey <sup>3</sup> , Faradina Merican <sup>1</sup>	
	<sup>1</sup> School of Biological Science, Universiti Sains Malaysia	
	<sup>2</sup> School of Biological Sciences, University of Canterbury	13:20-13:40
	<sup>3</sup> British Antarctic Survey, Cambridge	(10.20-10.40 UTC)
	STRONG AND WIDESPREAD CYCLOHEXIMIDE RESISTANCE IN THE EUKARYOTIC	(,
	ALGAL GENUS Stichococcus	
15	D.V. Lukashov, T.S. Tesolkina	
13	Taras Shevchenko National University of Kyiv, Kyiv	13:40-14:00
	FUNCTIONAL FEATURES OF BIOGEOCHEMICAL MIGRATION SYSTEM OF TOXIC	(10.40-11.00 UTC)
	CHEMICAL ELEMENTS IN TERRESTRIAL ECOSYSTEMS OF GALINDEZ ISLAND	
16	A.Ye. Berezkina <sup>1,2</sup> , M.A. Kharkhota <sup>3</sup> , L.D. Varbanets <sup>3</sup> , K.V. Avdiuk <sup>3</sup> , O.V. Gudzenko <sup>3</sup> , M.Yu.	
	Gorpynchenko, A.Yu. Utevsky <sup>1,2</sup>	
	<sup>1</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	
	Ukraine, Kyiv	14:00-14:20
	<sup>2</sup> V.N. Karazin Kharkiv National University, Kharkiv	(11.00-11.20 UTC)
	<sup>3</sup> D.K. Zabolotny Institute of Microbiology and Virology of the NAS of Ukraine, Kyiv	(11.00-11.20 010)
	PHYLOGENETIC RELATIONSHIPS OF THE GENUS PSEUDOALTEROMONAS,	
	PSYCHROMONAS AND OCEANOBACILLUS IN THE POLAR REGIONS	
17	O. M. Gromyko <sup>1</sup> , S.I. Tistechok <sup>1</sup> , I.I. Roman <sup>1</sup> , O.V. Aravitska <sup>1</sup> , A.M. Luzhetskyy <sup>3</sup> , I.Y.	
	Parnikoza <sup>2</sup> , V.O. Fedorenko <sup>1</sup>	
	<sup>1</sup> Ivan Franko National University of Lviv; Lviv	
	<sup>2</sup> National Antarctic Sientific Center of the Ministry of Education and Science of Ukraine,	
	Institute of Molecular biology and Genetic NAS of Ukraine, Kyiv	14:20-14:40
		(11.20-11.40 UTC)
	<sup>3</sup> Saarland University, Saarbrücken, Germany	
	ACTINOBACTERIA ASSOCIATED WITH Polytrichum strictum FROM GALINDEZ	
	ISLAND (MARITIME ANTARCTIC): DIVERSITY, PROPERTIES AND	
	BITECHOLOGICAL POTENTIAL	
18	O. Sinna <sup>1</sup> , V. Popov <sup>1</sup> , N. Efimova <sup>2</sup> , G. Yukhno <sup>2</sup> , A. Krasnopyorova <sup>2</sup> , D. Shmyrov <sup>3</sup> , A.	
	Utevsky <sup>1,3</sup>	
	<sup>1</sup> V. N. Karazin Kharkiv National University, Kharkiv	
	<sup>2</sup> Research Institute of Chemistry, V. N. Karazin Kharkiv National University, Kharkiv	14:40-15:00
	<sup>3</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	
	Ukraine, Kyiv	(11.40-12.00 UTC)
	GIS AND CARTOGRAPHIC SUPPORT OF THE CHEMICAL COMPOSITION	
	RESEARCH OF THE BOTTOM SEDIMENTS OF THE ARGENTINE ISLANDS` WATER	
	AREA	
19	Nataliia Raksha, Tetiana Halenova, Tetiana Vovk, Olexiy Savchuk, Ludmila Ostapchenko	
• /	ESC "Institute of Biology and Medicine", Taras Shevchenko National University of Kyiv	15:00-15:20
	ANTIOXIDANT PEPTIDES DERIVED FROM THE ANTARCTIC HYDROBIONTS	(12.00-12.20 UTC)
20		·
20	Kuzmina T.A. <sup>1</sup> , Salganskij O.O. <sup>2</sup> , Dykyj I.V. <sup>3</sup> , Lisitsyna O.L. <sup>1</sup> , Korol E.M. <sup>4</sup> , Kuzmin Y.I. <sup>1</sup>	
	<sup>1</sup> I. I. Schmalhausen Institute of Zoology NAS of Ukraine, Kyiv	
	<sup>2</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	
	Ukraine, Kyiv	15:20-15:40
	<sup>3</sup> Zoological museum of Lviv National University, Lviv	(12.20-12.40 UTC)
	<sup>4</sup> National Museum of Natural History NAS of Ukraine, Kyiv	
	SPECIES DIVERSITY OF THE PARASITE COMMUNITIES OF BONY FISHES FROM	
	THE ARGENTINE ISLAND REGION, WEST ANTARCTICA	
	, -	

21	A.Yu. Utevsky <sup>1,2</sup> , S.Yu. Utevsky <sup>1</sup> <sup>1</sup> V.N. Karazin Kharkiv National University, Kharkiv, Ukraine <sup>2</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of Ukraine, Kyiv  BIPOLAR DISTRIBUTION IN FISH PARASITES OF ANTARCTICA	15:40-16:00 (12.40-13.00 UTC)
22	S. Y. Komplikevych, I. I. Hruna, O. D. Maslovska, T. B. Peretyatko, O. M. Moroz, S. O. Hnatush  Ivan Franko National University of Lviv, Lviv  BACTERIA OF THE GENUS PSEUDOMONAS ISOLATED FROM ANTARCTIC BIOTOPES	16:00-16:20 (13.00-13.20 UTC)
23	Kovalenko P.A. <sup>1</sup> , Serga S.V. <sup>2,3</sup> , Salganskiy O.O. <sup>4</sup> , Kozeretska I.A. <sup>3</sup> <sup>1</sup> Institute for evolutionary ecology NAS Ukraine, Kyiv <sup>2</sup> Taras Shevchenko National University of Kyiv, Kyiv <sup>3</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of Ukraine, Kyiv <sup>4</sup> National University of Life and Environmental Sciences of Ukraine, Kyiv  ANALYSIS OF mtDNA HAPLOTYPES IN BELGICA ANTARCTICA JACOBS (DIPTERA, CHIRONOMIDAE) POPULATIONS	<mark>16:20-16:40</mark> (13.20-13.40 UTC)
24	I.O. Andreev <sup>1</sup> , I.I. Konvalyuk <sup>1</sup> , I.Yu. Parnikoza <sup>1,2</sup> , M.O. Pavlovska <sup>2</sup> , I.A. Kozeretska <sup>2</sup> , V.A. Kunakh <sup>1</sup> <sup>1</sup> Institute of Molecular Biology and Genetics, National Academy of Sciences of Ukraine, Kyiv <sup>2</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of Ukraine, Kyiv  MOLECULAR-GENETIC ANALYSIS OF COLOBANTHUS QUITENSIS POPULATIONS FROM ARGENTINE ISLANDS REGION USING RETROTRANSPOSON MARKERS	<mark>16:40-17:00</mark> (13.40-14.00 UTC)
25	O.O.Poronnik <sup>1</sup> , Ie.P.Prekrasna <sup>2</sup> , V.Yu.Ivanets <sup>2</sup> , I.Yu.Parnikoza <sup>2,1</sup> , G.Yu.Myryuta <sup>1</sup> , V.A.Kunakh <sup>1</sup> <sup>1</sup> Institute of Molecular Biology and Genetics, National Academy of Sciences of Ukraine, Kyiv <sup>2</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of Ukraine, Kyiv  IN VITRO CLONAL PROPAGATION OF COLOBANTHUS QUITENSIS FROM THE MARITIME ANTARCTICA	17:00-17:20 (14.00-14.20 UTC)
26	R.V. Ivannikov <sup>1</sup> , I.V. Laguta <sup>2</sup> , O.M. Stavynska <sup>2</sup> , P.O. Kuzema <sup>2</sup> , V.M. Anishchenko <sup>1</sup> , I.Yu. Parnikoza <sup>3</sup> , O.O. Poronnik <sup>4</sup> , G. Yu. Myryuta <sup>4</sup> , V.A. Kunakh <sup>4</sup> <sup>1</sup> M.M. Gryshko National Botanic Garden, National Academy of Sciences of Ukraine, Kyiv <sup>2</sup> Chuiko Institute of Surface Chemistry, National Academy of Sciences of Ukraine <sup>3</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of Ukraine, Kyiv <sup>4</sup> Institute of Molecular Biology and Genetics, National Academy of Sciences of Ukraine, Kyiv  COMPARATIVE STUDY OF BIOLOGICALLY ACTIVE COMPOUNDS CONTENTS IN DESCHAMPSIA ANTARCTICA PLANTS OF DIFFERENT ORIGIN	<mark>17:20-17:40</mark> (14.20-14.40 UTC)
27	I.I. Konvalyuk, M.O. Twardovska, L.P. Mozhylevska, I.O. Andreev, V.A. Kunakh Institute of Molecular Biology and Genetics of National Academy of Sciences of Ukraine, Kyiv CALLUS FORMATION, ORGANOGENESIS AND PLANT REGENERATION IN VITRO OF DESCHAMPSIA ANTARCTICA	17:40-18:00 (14.40-15.00 UTC)
28	N. Miryuta <sup>1</sup> , I. Parnikoza <sup>1,2</sup> , O. Poronnik <sup>2,1</sup> , G. Myryuta <sup>1,2</sup> , M. Rojek-Jelonek <sup>3</sup> , E. Dykyi <sup>1</sup> , V. Kunakh <sup>2</sup> <sup>1</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of Ukraine, Kyiv <sup>2</sup> Institute of Molecular Biology and Genetics, National Academy of Sciences of Ukraine, Kyiv <sup>3</sup> University of Silesia in Katowice, Katowice, Poland  CORRELATION MODELS OF ADAPTABILITY DESCHAMPSIA ANTARCTICA GENOTYPES OF DIFFERENT ORIGIN GROWN UNDER IN VITRO CONDITION	18:00-18:20 (15.00-15.20 UTC)
29	Twardovska M.O.¹, Konvalyuk I.I.¹, Lystvan K.V.², Andreev I.O.¹, Kunakh V.A.¹ <sup>1</sup> Institute of Molecular Biology and Genetics of NAS of Ukraine, Kyiv <sup>2</sup> Institute of Cell Biology and Genetic, Engineering of NAS of Ukraine, Kyiv  COMPARATIVE ANALYASIS OF THE CONTENT OF BIOLOGICALLY ACTIVE  COMPOUNDS IN INTACT PLANTS AND TISSUE CULTURE OF DESCHAMPSIA  ANTARCTICA E. DESV.	18:20-18:40 (15.20-15.40 UTC)

## May 13, 2021 (Thursday) 10:00-19:00 Kyiv time zone (07.00 – 14.00 UTC)

## LIFE SCIENCES SESSION

## Chairpersons: Ivan Parnikoza, Iryna Kozeretska

1	O. Salgansky <sup>1</sup> , A. Dzhulai <sup>1</sup> , G. Milinevsky <sup>1,2,3</sup> , P. Khoyetskyy <sup>1,4</sup> , V. Smagol <sup>5</sup> , I. Dykyy <sup>1,6</sup> , A. Simon <sup>2</sup> , M. Telipska <sup>6</sup> , L. Pshenichnov <sup>7</sup> , O. Savitsky <sup>8</sup> , M. Veselskyi <sup>9</sup> , D. Lutsenko <sup>10</sup> <sup>1</sup> National Antarctic Scientific Center, Ministry of Education and Science of Ukraine, Kyiv, Ukraine <sup>2</sup> Taras Shevchenko National University of Kyiv, Kyiv, Ukraine <sup>3</sup> International Center of Future Science, College of Physics, Jilin University, Changchun, China <sup>4</sup> National Forestry University of Ukraine, Lviv, Ukraine <sup>5</sup> Schmalhausen Institute of Zoology of National Academy of Sciences of Ukraine, Kyiv, Ukraine <sup>6</sup> Ivan Franko National University of Lviv, Lviv, Ukraine <sup>7</sup> Institute of Fisheries and Marine Ecology, Berdyansk, Ukraine <sup>8</sup> Institute of Hydrobiology, National Academy of Sciences of Ukraine, Kyiv, Ukraine <sup>9</sup> Zhytomyr Regional Museum of Local Lore, Zhytomyr, Ukraine <sup>10</sup> Institute for Problems of Cryobiology and Cryomedicine of National Academy of Sciences of Ukraine, Kharkiv, Ukraine  GENTOO BREEDING CHRONOLOGY BY CEMP CAMERAS - VALIDATION EXPERIMENT	10:00-10:20 (07.00-07.20 UTC)
2	J. Ivanchikova <sup>1,2,</sup> K. Vyshnyakova <sup>1,3</sup> <sup>1</sup> Scientific Research Institution Ukrainian Scientific Centre of Ecology of the Sea, Ministry of Ecology and Natural Resources of Ukraine, Odesa, Ukraine <sup>2</sup> I.I. Schmalhausen Institute of Zoology of National Academy of Sciences of Ukraine <sup>3</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of Ukraine, Kyiv, Ukraine  PHOTO-IDENTIFICATION STUDY OF HUMPBACK WHALES (MEGAPTERA NOVAEANGLIAE) NEAR THE SOUTHERN ORKNEY ISLANDS DURING AUSTRALIAN SUMMER 2020-2021	10:20-10:40 (07.20-07.40 UTC)
3	K. Vishnyakova <sup>1,2</sup> , J. Ivanchikova <sup>1,3</sup> <sup>1</sup> Scientific Research Institution Ukrainian Scientific Centre of Ecology of the Sea, Ministry of Ecology and Natural Resources of Ukraine, Odesa, Ukraine <sup>2</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of Ukraine, Kyiv, Ukraine <sup>3</sup> I.I. Schmalhausen Institute of Zoology of National Academy of Sciences of Ukraine, Kyiv, Ukraine  CETACEAN SPATIAL DISTRIBUTION NEAR THE SOUTHERN ORKNEY ISLANDS DURING ANTARCTIC KRILL FISHERY, AUSTRALIAN SUMMER 2020-2021	10:40-11:00 (07.40-08.00 UTC)
4	V.V. Paramonov Institute of Fisheries and Marine Ecology, Berdyansk TEMPERATURE CONDITIONS OF DWELLING OF ANTARCTIC TOOTHFISH (DISSOSTICHUS MAWSONI) IN ANTARCTICA (WEDDELL, ROSS AND AMUNDSEN SEAS).	11:00-11:20 (08.00-08.20 UTC)
5	B.V.Donskoi Institute of Pediatrics, Obstetrics and Gynecology, National Academy of Medical Sciences of Ukraine, Kyiv, Ukraine STUDY OF THE STATE OF THE IMMUNE SYSTEM OF ANTARCTIC EXPEDITIONS MEMBERS	11:20-11:40 (08.20-08.40 UTC)

6	Ya.V. Pirko <sup>1</sup> , Yu.O. Bilonozhko <sup>1</sup> , A.M. Rabokon <sup>1</sup> , A.S. Postovoitova <sup>1</sup> , L.O. Kalafat <sup>1</sup> , I.Yu. Parnikoza <sup>2</sup> , I.A. Kozeretska <sup>2</sup> , Ya.B. Blume <sup>1</sup> <sup>1</sup> Institute of Food Biotechnology and Genomics of the National Academy of Sciences of Ukraine», Kyiv, Ukraine <sup>2</sup> National Antarctic Scientific Center of the Ministry of Education and Science of Ukraine, Kyiv, Ukraine  ASSESSMENT OF COLOBANTHUS QUITENSIS GENETIC DIVERSITY IN THE ANTARCTIC BY ANALYSIS OF INTRON POLYMORPHISM OF CYTOSKELETON PROTEIN GENES	11:40-12:00 (08.40-09.00 UTC)
	POSTERS:	12:00-16:15 (09.00 – 13.15 UTC
1	N. Abu Bakar, B. Y. C. Lau, J. Smykla, S. A. Karsani and S. A. Alias  Institute of Ocean and Earth Sciences, Universiti Malaya, Kuala Lumpur, Malaysia  HEAT STRESS RESPONSE OF PSEUDOGYMNOASCUS SPP. ISOLATED FROM DIFFERENT BIOGEOGRAPHIC REGIONS	12:00-12:15 (09.00-09.15 UTC)
2	R.R. Wong <sup>1</sup> , S.A. Ahmad <sup>1</sup> , C. Gomez-Fuentes <sup>2</sup> , A. Zulkharnain <sup>3</sup> , S. Sabri <sup>4</sup> , C. K.A. Khalil <sup>5</sup> <sup>1</sup> Department of Biochemistry, Faculty of Biotechnology and Biomolecular Sciences, Universiti Putra Malaysia, Selangor, Malaysia <sup>2</sup> Department of Chemical Engineering, Universidad de Magallanes, Punta Arenas, Chile <sup>3</sup> Department of Bioscience and Engineering, College of Systems Engineering and Science, Shibaura Institute of Technology, Saitama, Japan <sup>4</sup> Department of Microbiology, Faculty of Biotechnology and Biomolecular Sciences, Universiti Putra Malaysia, Selangor, Malaysia. <sup>5</sup> Department of Biomolecular Sciences, Faculty of Applied Sciences, Universiti Teknologi MARA, Selangor, Malaysia  ANTARCTIC BACTERIAL CONSORTIUM DIESEL DEGRADATION OPTIMISATION VIA STATISTICAL APPROACH	12:15-12:30 (09.15-09.30 UTC)
3	T.A. Tengku-Mazuki <sup>1</sup> , S.A. Ahmad <sup>1</sup> , N.A. Shaharuddin <sup>1</sup> , P. Convey <sup>2</sup> , A. Zulkharnain <sup>3</sup> , C. Gomez-Fuentes <sup>4</sup> <sup>1</sup> Department of Biochemistry, Faculty of Biotechnology and Biomolecular Sciences, Universiti Putra Malaysia, Selangor, Malaysia <sup>2</sup> British Antarctic Survey, NERC, Cambridge, United Kingdom <sup>3</sup> Department of Bioscience and Engineering, College of Systems Engineering and Science, Shibaura Institute Technology, Saitama, Japan. <sup>4</sup> Department of Chemical Engineering, Universidad de Magallanes, Punta Arenas, Chile EFFECT OF HEAVY METALS ON PHENOL DEGRADATION BY AN ANTARCTIC BACTERIAL CONSORTIUM	12:30-12:45 (09.30-09.45 UTC)
4	G. Verasoundarapandian <sup>1</sup> , CY. Wong <sup>2</sup> , S.A. Ahmad <sup>1</sup> <sup>1</sup> Department of Biochemistry, Faculty of Biotechnology and Biomolecular Sciences, Universiti Putra Malaysia, Selangor, Malaysia <sup>2</sup> School of Health Sciences, International Medical University, Kuala Lumpur, Malaysia GROWTH EVALUATION OF ANTARCTIC FILAMENTOUS ALGAE IN MOLYBDENUM AS HEAVY METAL	12:45-13:00 (09.45-10.00 UTC)
5	O. Salgansky¹, A. Dzhulai¹, G. Milinevsky¹.².³, P. Khoyetskyy¹.⁴, V. Smagol⁵, I. Dykyy¹.⁶, A. Simon², M. Telipska⁶, L. Pshenichnov⁶, O. Savitsky⁶, M. Veselskyi⁶, D. Lutsenko¹⁰ ¹National Antarctic Scientific Center, Ministry of Education and Science of Ukraine, Kyiv, Ukraine ²Taras Shevchenko National University of Kyiv, Kyiv, Ukraine ³International Center of Future Science, College of Physics, Jilin University, Changchun, China ⁴National Forestry University of Ukraine, Lviv, Ukraine ⁵Schmalhausen Institute of Zoology of National Academy of Sciences of Ukraine, Kyiv, Ukraine ⁶Ivan Franko National University of Lviv, Lviv, Ukraine ⁵Institute of Fisheries and Marine Ecology, Berdyansk, Ukraine ⁶Institute of Hydrobiology, National Academy of Sciences of Ukraine, Kyiv, Ukraine ⁰Zhytomyr Regional Museum of Local Lore, Zhytomyr, Ukraine ¹⁰Institute for Problems of Cryobiology and Cryomedicine of National Academy of Sciences of Ukraine, Kharkiv, Ukraine ESTABLISHING A CEMP CAMERA NETWORK IN ANTARCTIC PENINSULA: PROJECT RESULTS	13:00-13:15 (10.00-10.15 UTC)

6	<u>Ivanets V.</u> <sup>1</sup> , Miryuta N. <sup>1</sup> , Yevchun A. <sup>1,2</sup> , Pilipenko D. <sup>1</sup> , Salgansky O. <sup>1,3</sup> , Veselsky M. <sup>4</sup> , Kozeretska I. <sup>1</sup> , Dykyi E. <sup>1</sup> , Parnikoza I. <sup>1,2,5,6</sup>	
	<sup>1</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	
	Ukraine, Kyiv <sup>2</sup> National University of «Kyiv-Mohyla Academy», Kyiv	
	National University of «Kyiv-Monyta Academy», Kyiv  National University of Life and Environmental Sciences of Ukraine, Kyiv	13:15-13:30
	<sup>4</sup> Zhytomyr Regional Museum of Culture and Traditions, Zhytomyr	(10.15-10.30 UTC)
	<sup>5</sup> Institute of Molecular Biology and Genetic, NAS of Ukraine, Kyiv	
	<sup>6</sup> National Historical and Architectural Museum «Kyiv Fortress», Kyiv	
	AN EXAMPLE OF ORNITHOCHORY: CATHARACTA MACCORMICKI IN THE REGION OF	
	THE ARGENTINE ISLANDS, THE MARITIME ANTARCTIC	
7	Y.G. Giginyak, D.A. Lukashanets, O.I. Borodin, V.E. Myamin	
	State Scientific and Production Association "Scientific Research Center of the National Academy of Sciences of Belarus for Bioresources", Minsk, Belarus	13:30-13:45
	TEMPERATURE SURVIVAL OF DAPHNIA (CTENODAPHNIA STUDERI (RUHE, 1914)	(10.30-10.45 UTC)
	(ANOMOPODA, CRUSTACEA: CLADOCERA) FROM COASTAL LAKES AT LARSEMANN	(10.50 10.15 616)
	OASIS (LARSEMANN HILLS, EAST ANTARCTICA)	
8	O.M. Bublyk, I.O. Andreev, V.A. Kunakh	
	Institute of Molecular Biology and Genetics of National Academy of Sciences of Ukraine, Kyiv	13:45-14:00
	BIOINFORMATIC ANALYSIS OF GENE PROMOTER OF	(10.45-11.00 UTC)
	DESCHAMPSIA ANTARCTICA DaDREB2B STRESS-INDUCIBLE TRANSCRIPTION	( 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
9	FACTOR  Ie.P. Prekrasna <sup>1</sup> , M.O. Pavlovska <sup>1,3</sup> , V.Yu.Ivanets <sup>1</sup> , I.Yu. Parnikoza <sup>1,2</sup>	
	<sup>1</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	
	Ukraine, Kyiv, Ukraine;	
	<sup>2</sup> Institute of Molecular Biology and Genetics, National Academy of Sciences of Ukraine, Kyiv,	14:00-14:15
	Ukraine;	(11.00-11.15 UTC)
	<sup>3</sup> National University of Life and Environmental Sciences of Ukraine, Kyiv, Ukraine	
	ENDOPHYTIC BACTERIAL COMMUNITIES' COMPOSITION OF ANTARCTIC	
10	VASCULAR PLANTS DERIVED BY 16S rRNA METAGENOMICS  M.O. Pavlovska <sup>1</sup> , Ie.P. Prekrasna <sup>1</sup> , A.O. Dzhulai <sup>1</sup> , A.B. Zotov <sup>1</sup> , E.O. Dykyi <sup>1</sup>	
10	<sup>1</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	
	Ukraine, Kyiv	
	<sup>2</sup> National University of Life and Environmental Sciences of Ukraine, Kyiv, Ukraine	14:15-14:30
	<sup>3</sup> State Institution Institute of Marine Biology of the NAS of Ukraine, Odesa, Ukraine	(11.15-11.30 UTC)
	OPTIMIZED PROTOCOL FOR DNA EXTRACTION FROM LOW-ABUNDANCE	
11	ANTARCTIC BACTERIOPLANKTON SAMPLES FOR INCREASED YIELD	
11	E.A. Gribanova, V.E. Miamin Belarusian State University, Minsk, Belarus	14:30-14:45
	PHYSIOLOGICAL AND BIOCHEMICAL CHARACTERISTICS OF YEAST ISOLATED	(11.30-11.45 UTC)
	FROM DIFFERENT ECOSYSTEMS OF EASTERN ANTARCTIDA	(11.30 11.13 616)
12	V. Holovan, V. Zoloiedova, O. Andriichuk	
	Taras Shevchenko National University of Kyiv, Ukraine	14:45-15:00
	PRESERVATION OF INFECTIVITY OF BACTERIOPHAGELYSATES ISOLATED FROM	(11.45-12.00 UTC)
	SOIL BIOTOPES OF THE ANTARCTIC REGION DEPENDING ON STORAGE TIME AND	
13	TEMPERATURE  Yu. G. Hihinyak <sup>1</sup> , M.P. Andreev <sup>2</sup> , E.R. Grischenko <sup>3</sup> , P. Convey <sup>4</sup> , O.L. Kandelinskaya <sup>3</sup>	
13	<sup>1</sup> Scientific and Practical Center for Bioresources of National Academy of Sciences of Belarus,	
	Minsk, Belarus	
	<sup>2</sup> Komarov Botanical Institute of the Russian Academy of Sciences, St. Petersburg, Russia	15:00-15:15
	<sup>3</sup> V.F. Kuprevich Institute of Experimental Botany of National Academy of Sciences of Belarus,	(12.00-13:15 (12.00-12.15 UTC)
	Minsk, Belarus	(12.00 12.13 010)
	<sup>4</sup> British Antarctic Survey, NERC, Cambridge, United Kingdom ELEMENT ACCUMULATION IN MARITIME AND CONTINENTAL ANTARCTIC	
	LICHENS	
14	N.Y. Kyyak, O.B. Lobachevska, Y.D. Khorkavtsiv	
	Institute of Ecology of the Carpathian of the National Academy of Sciences of Ukraine, Lviv,	
	Ukraine	
	PHOTOPROTECTOR FUNCTIONS OF UV-ABSORBING PHENOLIC COMPOUNDS OF	15:15-15:30
	BRYOPHYTES FROM ANTARCTICA	(12.15-12.30 UTC)

15	O. Lobachevska <sup>1</sup> , N. Kyyak <sup>1</sup> , Ya. Khorkavtsiv <sup>1</sup> , E. Kordyum <sup>2</sup>	
	<sup>1</sup> Institute of Ecology of the Carpathians of the National Academy of Sciences of Ukraine, Lviv <sup>2</sup> M.G. Kholodny Institute of Botany of the National Academy of Sciences of Ukraine, Kyiv BIOLOGICAL CHARACTERISTICS GRAVIMORPHOSES THAT ASSIST OF MOSS SPECIES TOLERANCE IN ANTARCTICA CONDITIONS	15:30-15:45 (12.30-12.45 UTC)
16	L. M. Bakhmutova State Institution National Antarctic Scientific Center, Ministry of Education and Science of Ukraine, Kyiv SOCIO-SPATIAL ISOLATION AND PSYCHOLOGICAL STATE OF UKRAINIAN ANTARCTIC EXPEDITIONS PARTICIPANTS	15:45-16:00 (12.45-13.00 UTC)
17	V.V.Vasiliev <sup>1</sup> , <u>O.V.Nahlov<sup>2</sup></u> <sup>1</sup> Institute of Applied Cryology, Kharkiv, Ukraine <sup>2</sup> V.N. Karazin Kharkiv National University, Kharkiv, Ukraine  SHORT-TERM COLD LOADS AS AN ELEMENT OF REHABILITATION ACTIONS AFTER  THE INFLUENCE OF EXTREME FACTORS	16:00-16:15 (13.00-13.15 UTC)
18	O. A. Miroshnychenko Zhytomyr Ivan Franko State University, Zhytomyr, Ukraine AGE FEATURES OF PSYCHOLOGICAL READINESS OF WINTERERS TO LIFE IN ANTARCTICA	16:15-16:30 (13.15-13.30 UTC)
19	O.V. Savenko  State Institution National Antarctic Scientific Center, Ministry of Education and Science of Ukraine, Kyiv, Ukraine  Ukrainian Scientific Center of Ecology of the Sea, Odesa, Ukraine  NEW SIGHTINGS OF THE SOUTHERN RIGHT WHALES NEAR THE WESTERN COAST OF THE ANTARCTIC PENINSULA, IN 2018 AND 2020	16:30-17:00 (13.30-14.00 UTC)
	Round-table discussion on the topic "Development of Possible Cooperation in Life Sciences"	
	All participants are invited	17:00-18:00 (14.00-15.00 UTC)

# **May 13**, 2021 (**Thursday**)

10.00 – 16.00 Kyiv time zone (07.00 – 13.00 UTC)

## **GEOSCIENCES SESSION**

Chairperson: Sergiy Kadurin

1	O. Mytrokhyn <sup>1</sup> , V. Bakhmutov <sup>2,3</sup>	
	<sup>1</sup> Taras Shevchenko National Universityof Kyiv, Ukraine	
	<sup>2</sup> Institute of Geophysics National Academy of Sciences of Ukraine	10:00-10:20
	<sup>3</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	(07.00-07.20 UTC)
	Ukraine, Kyiv, Ukraine	(07.00-07.20 OTC)
	GEOLOGICAL SURVEY ON THE UKRAINIAN ANTARCTIC STATION AREA (THE	
	HISTORY, CURRENT STATE AND THE FUTURE)	
2	A. Chernov <sup>1</sup> , D. Pishniak <sup>1</sup> , Y. Otruba <sup>1</sup> , J. Karuss <sup>2</sup> , K. Lamsters <sup>2</sup> , M. Krievans <sup>2</sup> , V. Trokhymets <sup>3</sup>	
	<sup>1</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	
	Ukraine, Kyiv, Ukraine	
	<sup>2</sup> University of Latvia, Faculty of Geography and Earth Sciences, Riga, Latvia	10.00.10.40
	<sup>3</sup> Taras Shevchenko National University of Kyiv, Educational and Scientific Center	10:20-10:40
	«Institute of Biology and Medicine», Kyiv, Ukraine	(07.20-07.40 UTC)
	APPLICATION OF GEOPHYSICAL AND BIOLOGICAL APPROACHES FOR	
	INVESTIGATIONS OF ICE-CAPS ON THE ARGENTINE ISLANDS (WEST ANTARCTICA)	
	(TIME PERIOD:2017-2020)	
3	V.Yu. Maksymchuk, I.O.Chobotok, Ye.F.Nakalov, R.S.Kuderavets, N.B.Pyrizhok	
	Carpathian Branch of Subbotin Institute of Geophysics, National Academy of Sciences of	10 10 11 00
	Ukraine, Lviv, Ukraine	10:40-11:00
	THE RESULTS OF LONG-TERM TECTONOMAGNETIC RESEARCH ON ANTARCTIC	(07.40-08.00 UTC)
	GEOPHYSICAL POLIGON	
4	T.Klymkovych	
	Lviv Polytechnic National University, Lviv, Ukraine	11:00-11:20
	VARIATIONS OF INDUCTION VECTORS AT THE AIA MAGNETIC OBSERVATORY	(08.00-08.20 UTC)
	(AKADEMIK VERNADSKY STATION)	,
5	O.I. Liashchuk <sup>1</sup> , V.K. Zhukovsky <sup>2</sup> , Ye.V. Kariagin <sup>1</sup> , Yu.A. Andrushchenko <sup>1</sup> , Yu.S. Otruba <sup>3</sup>	
	<sup>1</sup> Main Center of Special Monitoring, Gorodok. Ukraine	
	<sup>2</sup> K.D. Ushynsky South Ukrainian National Pedagogical University, Odesa, Ukraine	11.00 11.40
	<sup>3</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	11:20-11:40
	Ukraine, Kyiv, Ukraine	(08.20-08.40 UTC)
	SEISMO-ACOUSTIC MONITORING OF THE CRYOSPHERE IN THE VERNADSKY	
	STATION REGION	
6	O.I. Liashchuk <sup>1</sup> , Ye.V. Kariagin <sup>1</sup> , Yu.A. Andrushchenko <sup>1</sup> , V.K. Zhukovskyi <sup>2</sup> , Yu.S. Otruba <sup>3</sup> , S.V.	
	Dovbysh <sup>1</sup>	
	<sup>1</sup> Main Center of Special Monitoring, National Space Facilities Control and Test Center, State	
	Space Agency of Ukraine, Gorodok. Ukraine	11.40 12.00
	<sup>2</sup> K.D. Ushynsky South Ukrainian National Pedagogical University, Odesa, Ukraine	11:40-12:00
	<sup>3</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	(08.40-09.00 UTC)
	Ukraine, Kyiv, Ukraine	
	INFRASOUND ARRAY OBSERVATION IN THE ANTARCTIC PENINSULA REGION,	
	FIRST RESULTS	
7	G.V. Melnyk <sup>1</sup> , V.G. Bakhmutov <sup>1,2</sup> , N.A. Kilifarska <sup>3</sup> , O.Ja. Shenderovska <sup>1</sup>	
	<sup>1</sup> S.I. Subbotin Institute of Geophysics, National Academy of Sciences of Ukraine, Kyiv, Ukraine	12:00-12:20
	<sup>2</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	(09.00-09.20 UTC)
	Ukraine, Kyiv, Ukraine	
<b></b>		

	<sup>3</sup> National Institute of Geophysics, Geodesy and Geography, Bulgarian Academy of Sciences,	
	Sofia, Bulgaria CHANGES IN THE GEOMAGNETIC FIELD AND SURFACE AIR TEMPERATURE IN	
	ANTARCTICA	
8	G.V. Artemenko <sup>1</sup> , V.G. Bakhmutov <sup>2</sup>	
	<sup>1</sup> M.P. Semenenko Institute of Geochemistry, Mineralogy and Ore Formation of the National	12:20-12:40
	Academy of Sciences of Ukraine, Kiev, Ukraine	(09.20-09.40 UTC)
	<sup>2</sup> S.I. Subbotin Institute of Geophysics, National Academy of Sciences of Ukraine, Kyiv, Ukraine	(0).20 0).10 010)
	SIGNS OF ORE MINERALIZATION IN THE AREA OF THE ARGENTINE ISLANDS	
9	<u>V. Bakhmutov<sup>1,2</sup></u> , O. Mytrokhyn <sup>3</sup>	
	Institute of Geophysics National Academy of Sciences of Ukraine, Kyiv, Ukraine	
	<sup>2</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	12:40-13:00 (09.40-10.00 UTC)
	Ukraine;	
	<sup>3</sup> Taras Shevchenko National University of Kyiv;	(0):10 10:00 616)
	MAGNETIC TEXTURE OF GABBROIDS OF THE WILHELM ARCHIPELAGO AS AN	
	INDICATOR OF REGIONAL TECTONIC PROCESSES	
10	K. Lamsters <sup>1</sup> , J. Karušs <sup>1</sup> , M. Krievāns <sup>1</sup> , J. Ješkins <sup>1</sup> , P. Džeriņš <sup>1</sup> , A. Chernov <sup>2</sup> , I. Sobota <sup>3, 4</sup>	
	<sup>1</sup> University of Latvia, Faculty of Geography and Earth Sciences, Riga, Latvia;	
	<sup>2</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	
	Ukraine, Kyiv;	
	<sup>3</sup> Faculty of Earth Sciences and Spatial Management, Nicolaus Copernicus University in Toruń,	13:00-13:20
	Toruń, Poland.	(10.00-10.20 UTC)
	<sup>4</sup> Polar Research Center, Faculty of Earth Sciences and Spatial Management, Nicolaus	
	Copernicus University in Toruń, Toruń, Poland	
	GEOPHYSICAL RESEARCH OF ANTARCTIC AND ARCTIC GLACIERS AT THE	
	UNIVERSITY OF LATVIA	
11	T.P.Yegorova <sup>1</sup> , A.V., Murovskaya <sup>1</sup> , V.G.Bakhmutov <sup>1,2</sup> , A.V.Mytrokhyn <sup>3</sup> , V.V.Shpyra <sup>1</sup>	
	<sup>1</sup> Institute of Geophysics National Academy of Sciences of Ukraine, Kyiv, Ukraine	
	<sup>2</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	
	Ukraine, Kyiv, Ukraine	13:20-13:40
	<sup>3</sup> Taras Shevchenko National University of Kyiv, Ukraine	(10.20-10.40 UTC)
	EVOLUTION OF CENOZOIC MAGMATISM OF THE ANTARCTIC PENINSULA ON THE	
	EXAMPLE OF THE BARCHANS-FORGE ISLANDS ACCORDING TO GEOLOGICAL AND	
	GEOPHYSICAL DATA	
12	K.Yu.Tkachenko	13:40-14:00
	Institute of Geological Sciences NAS of Ukraine, Kyiv, Ukraine	(10.40-11.00 UTC)
10	PROSPECTS OF STUDY OF ELECTRIC PHENOMENA IN SNOW-AIR INTERACTIONS	,
13	Kh.I. Marusazh, V.M. Hlotov	14.00.14.20
	Institute of Geodesy, Lviv Polytechnic National University, Lviv, Ukraine	14:00-14:20
	THE COMPLEX STUDY FOR DETERMINATION OF THE VOLUME CHANGES OF	(11.00-11.20 UTC)
1.4	GLACIERS ON GALINDEZ AND WINTER ISLANDS	
14	I. Savchyn, K. Tretyak	14.20 14 40
	Lviv Polytechnic National University, Institute of Geodesy, Lviv, Ukraine	14:20-14:40
	CRYSTAL STRAIN ANALYSIS IN THE PENOLA STRAIT - LEMAIRE CHANNEL FAULT	(11.20-11.40 UTC)
	AREA	
	DOCUMENC	<b>14:40-16:00</b>
	POSTERS:	(11.40-13.00 UTC)
1	V.G.Pysarenko	
	V.M. Glushkov Institute of Cybernetics, National Academy of Sciences of Ukraine, Kyiv, Ukraine	14:40-15:00
	THE CONCEPT OF ANTARCTIC GLACIER MELTING PROCESSES MONITORING	(11.40-12.00 UTC)
	ORGANIZATION	,
2	V.D. Soloviev <sup>1</sup> , N.A. Yakymchuk <sup>2</sup> , I.N. Korchagin <sup>1</sup>	
	<sup>1</sup> Institute of Geophysics of Ukraine National Academy of Science, Kyiv, Ukraine	
	<sup>2</sup> Institute of Applied Problems of Ecology, Geophysics and Geochemistry, Kyiv, Ukraine IS	15:00-15:15
	GIANT STRUCTURE AT WILKES LAND (EAST ANTARCTICA) METEORITE CRATER OR	(12.00-12.15 UTC)
	VOLCANO?	(
3	V.D. Soloviev <sup>1</sup> , V.G. Bakhmutov <sup>1</sup> , N.A. Yakymchuk <sup>2</sup> , I.N. Korchagin <sup>1</sup>	
	<sup>1</sup> Institute of Geophysics of Ukraine National Academy of Sciences, Kyiv, Ukraine,	15:15-15:30
	<sup>2</sup> Institute of Applied Problems of Ecology, Geophysics and Geochemistry, Kyiv, Ukraine	(12.15-12.30 UTC)
	THE FIRST ACTIVE METHANE SEEPS IN ANTARCTICA: NEW EXPERIMENTAL DATA	(12.13 12.30 010)
i	THE THOU DOLL THE THE THE SELECTION AND THE WEAT EMINENTAL DATA	

		1
1	S.V. Kadurin, K.P. Andreeva	
-	Odessa I.I. Mechnikov National University, Odesa	15:30-15:45
	PETROGRAPHIC AND MINERALOGICAL STUDY OF MAGMATIC ROCKS IN	(12.30-12.45 UTC
	UKRAINIAN ANTARCTIC AKADEMIK VERNADSKY STATION AREA	(12.30-12.43 010
	M.I. Orlyuk, A.O. Romenets	
	S.I. Subbotin Institute of Geophysics of the National Academy of Sciences of Ukraine, Kyiv,	
		15:45-16:00
	Ukraine	
	SPATIAL-TIME STRUCTURE OF GEOMAGNETIC FIELD FOR THE TERRITORIES OF UKRAINE, OF YAMAL (RUSSIA) AND AROUND THE UKRAINIAN ANTARCTIC	(12.45-13.00 UTC
	AKADEMIK VERNADSKY STATION: ECOLOGICAL ASPECT	

May 12, 2021 (Wednesday) 10.00 – 19.20 Kyiv time zone (07.00 – 14.20 UTC)

## PHYSICAL SCIENCES

# Chairpersons: Oleksandr Koloskov, Andriy Zalizovski

1	Yu.G. Rapoport <sup>1,2</sup> , V.M. Reshetnyk <sup>1</sup> , M. Hayakawa <sup>3</sup> , V.V. Grimalsky <sup>4</sup> , O.V. Agapitov <sup>5</sup> , A.V. Grytsai <sup>1</sup> , A.I. Liashchuk <sup>2</sup> , V.M. Ivchenko <sup>1</sup> , A.K. Fedorenko <sup>6,1</sup> , S.S. Petrishchevskii <sup>1</sup> , V.N. Fedun <sup>7</sup> <sup>1</sup> Taras Shevchenko National University of Kyiv, Ukraine	
	<sup>2</sup> National Center for Control and Testing of Space Facilities of the State Space Agency of Ukraine (NCCSSAU), Kyiv, Ukraine	
	<sup>3</sup> Hayakawa Institute of Seismo Electromagnetics, Co. Ltd., Japan	10:00-10:20
	<sup>4</sup> CIICAp, Autonomous University of State Morelos (UAEM), Cuernavaca, Mor., Mexico <sup>5</sup> University of California, Berkeley, USA	(07.00-07.20 UTC)
	<sup>6</sup> Space Research Institute of National Academy of Sciences of Ukraine and State Space Agency of	
	Ukraine, Kyiv, Ukraine <sup>7</sup> The University of Sheffield, UK	
	MODELING ULF AND VLF ACTIVITY IN THE NEAR-EARTH SPACE ENVIRONMENT: BOUNDARY CONDITIONS AND PROPAGATION EFFECTS	
2	O.V. Bogomaz <sup>1</sup> , M.O. Shulha <sup>1,2</sup> , D.V. Kotov <sup>1,2</sup> , T.G. Zhivolup <sup>1</sup> , A.V. Koloskov <sup>3,4</sup> , A.V. Zalizovski <sup>3,4,5</sup> , V.M. Lisachenko <sup>3</sup>	
	<sup>1</sup> Institute of Ionosphere, NAS and MES of Ukraine, Kharkiv, Ukraine	
	<sup>2</sup> National Technical University "Kharkiv Polytechnic Institute", Kharkiv, Ukraine	10:20-10:40
	<sup>3</sup> Institute of Radio Astronomy of NASU, Kharkiv, Ukraine <sup>4</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	(07.20-07:40 UTC)
	Ukraine, Kyiv, Ukraine	
	<sup>5</sup> Space Research Centre of Polish Academy of Sciences, Warsaw, Poland TESTING THE ARTIFICIAL NEURAL NETWORK FOR SCALING IONOGRAMS	
	OBTAINED AT THE UKRAINIAN ANTARCTIC AKADEMIK VERNADSKY STATION	
3	A.V. Grytsai <sup>1</sup> , O.M. Evtushevsky <sup>1</sup> , G.P. Milinevsky <sup>1,2</sup> and A. Klekociuk <sup>3,4</sup> <sup>1</sup> Taras Shevchenko National University of Kyiv, Kyiv, Ukraine	
	<sup>2</sup> National Antarctic Scientific Center, Kyiv, Ukraine	10:40-11:00
	<sup>3</sup> Antarctic Climate Program, Australian Antarctic Division, Kingston, Australia	(07.40-08.00 UTC)
	<sup>4</sup> Department of Physics, University of Adelaide, Adelaide, Australia	
4	PLANETARY WAVE INFLUENCE ON THE OZONE HOLE IN 2010–2020  A.K. Fedorenko, O.K. Cheremnykh, E.I. Kryuchkov, Yu.O. Klymenko	
	Space Research Institute of National Academy of Science of Ukraine and State Space Agency of	11:00-11:20
	Ukraine, Kyiv, Ukraine WIND CONTROL OF DIRECTIONS PROPAGATION AND AMPLITUDES OF WAVE	(08.00-08.20 UTC)
	PERTURBATIONS IN THE UPPER ATMOSPHERE OVER ANTARCTICA	
5	O. Ivaniha	11:20-11:40
	Taras Shevchenko National University of Kyiv, Kyiv, Ukraine VIEW ON TROPOPAUSE BEHAVIOR OVER ANTARCTICA	(08.20-08.40 UTC)
6	Andriy Zalizovski <sup>1,2,3</sup> , Yuri Yampolski <sup>1</sup> , Oleksandr Koloskov <sup>1,2</sup> , Sergei Kashcheyev <sup>1</sup> , Bogdan	
	Gavrylyuk <sup>1,2</sup> , Olesia Charkina <sup>1</sup> Institute of Radio Astronomy of NAS of Ukraine, Kharkiv, Ukraine	
	<sup>2</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	
	Ukraine, Kyiv, Ukraine	11:40-12:00
	<sup>3</sup> Space Research Centre of Polish Academy of Sciences, Poland	(08.40-09.00 UTC)
	HF RADIO SOUNDING OF THE IONOSPHERE ON LONG-DISTANCE RADIO PATHS WITH A RECEIVING SITE AT AKADEMIK VERNADSKY STATION: THE RESULTS OF THE	
	FIRST 11 YEARS OF OBSERVATIONS	

7	Oleksandr Koloskov <sup>1,2</sup> , Andriy Zalizovski <sup>1,2,3</sup> , Yuri Yampolski <sup>1</sup> , Gennady Milikh <sup>4</sup> , Evgeny	
	Mishin <sup>5</sup> , Artem Reznychenko <sup>1</sup> , Michael Rietveld <sup>6</sup> , Erik Varberg <sup>6</sup> , Juha Vierinen <sup>6</sup>	
	<sup>1</sup> Institute of Radio Astronomy of NAS of Ukraine, Kharkiv, Ukraine	
	<sup>2</sup> State Institution National Antarctic Scientific Center, MES of Ukraine, Kyiv, Ukraine	
	<sup>3</sup> Space Research Centre of Polish Academy of Sciences, Warsaw, Poland	12:00-12:20
	<sup>4</sup> Department of Astronomy, University of Maryland, College Park, MD, USA	(09.00-09.20 UTC)
	<sup>5</sup> Space Vehicles Directorate, Air Force Research Laboratory, Albuquerque, NM, USA	
	<sup>6</sup> UiT The Arctic University of Norway, Tromsø, Norway	
	HF RESPONSE IN ANTARCTICA DURING EISCAT-UKRAINE HEATING CAMPAIGN	
	(JUNE, 2020)	
8	Andriy Zalizovski <sup>1,2,3</sup> , Iwona Stanislawska <sup>2</sup> , Lukasz Tomasik <sup>2</sup>	
	Institute of Radio Astronomy of NAS of Ukraine, Kharkiv, Ukraine	
	<sup>2</sup> Space Research Centre of Polish Academy of Sciences, Poland	12 20 12 10
	<sup>3</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	12:20-12:40
	Ukraine, Kyiv, Ukraine	(09.20-09.40 UTC)
	ADVANCED TECHNIQUE FOR ESTIMATING THE MONTHLY MEDIAN IONOSPHERIC	
	PARAMETERS AT THE AURORAL REGIONS	
9	M.O. Shulha <sup>1,2</sup> , D. V. Kotov <sup>1</sup> , O.V. Bogomaz <sup>1</sup> , T.G. Zhivolup <sup>1</sup> , O.V. Koloskov <sup>3,4</sup> , A.V.	
	Zalizovski <sup>3,4,5</sup> V.M. Lisachenko <sup>3</sup> , A.I. Reznychenko <sup>3</sup>	
	<sup>1</sup> Institute of Ionosphere, NAS and MES of Ukraine, Kharkiv, Ukraine	
	<sup>2</sup> National Technical University "Kharkiv Polytechnic Institute", Kharkiv, Ukraine	
	<sup>3</sup> Institute of Radio Astronomy of NASU, Kharkiv, Ukraine	12:40-13:00
	<sup>4</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	(09.40-10.00 UTC)
	Ukraine, Kyiv, Ukraine	(0).10 10.00 010)
	<sup>5</sup> Space Research Centre of Polish Academy of Sciences, Warsaw, Poland	
	SEASONAL EFFECTS IN VARIATIONS OF ELECTRON DENSITY OVER THE	
	UKRAINIAN ANTARCTIC STATION: RESULTS OF OBSERVATIONS AND MODELLING	
10	M.O. Shulha <sup>1,2</sup> , D.V. Kotov <sup>1</sup> , O.V. Bogomaz <sup>1</sup> , T.G. Zhivolup <sup>1</sup> , O.V. Koloskov <sup>3,4</sup> , A.V.	
10	Zalizovski <sup>3,4,5</sup> V.M. Lisachenko <sup>3</sup> , A.I. Reznychenko <sup>3</sup>	
	<sup>1</sup> Institute of Ionosphere, NAS and MES of Ukraine, Kharkiv, Ukraine	
	<sup>2</sup> National Technical University "Kharkiv Polytechnic Institute", Kharkiv, Ukraine	
	<sup>3</sup> Institute of Radio Astronomy of NASU, Kharkiv, Ukraine	13:00-13:20
	<sup>4</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	(10.00-10.20 UTC)
	Ukraine, Kyiv, Ukraine	(10.00-10.20 01C)
	<sup>5</sup> Space Research Centre of Polish Academy of Sciences, Warsaw, Poland	
	RESULTS OF IONOSPHERE-PLASMASPHERE SYSTEM INVESTIGATION IN THE	
	AMERICAN AND EUROPEAN LONGITUDINAL SECTORS FOR 2020	
11	O.V. Koloskov <sup>1,2</sup> , Y.M Yampolski <sup>1</sup> , O.V. Budanov <sup>1</sup> , Chis Hall <sup>3</sup>	
11	Institute of Radio Astronomy of National Academy of Sciences of Ukraine, Kharkiv, Ukraine	
	<sup>2</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	
	Ukraine, Kyiv, Ukraine	13:20-13:40
	<sup>3</sup> UiT The Arctic University of Norway, Tromsø, Norway	(10.20-10.40 UTC)
	TWO POSITION ANTARCTIC-ARCTIC "COUNTER" OF INTENSE LIGHTNING	
	DISCHARGES	
12	O.V. Koloskov <sup>1,2</sup> , Y.M Yampolski <sup>1</sup> , O.V. Budanov <sup>1</sup>	
12	<sup>1</sup> Institute of Radio Astronomy of National Academy of Sciences of Ukraine, Kharkiv, Ukraine	
	<sup>2</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	13:40-14:00
		(10.40-11.00 UTC)
	Ukraine, Kyiv, Ukraine MONITORING OF THE POWER LINE EMISSION FROM NORTH AMERICA AT THE	(10.40-11.00 UTC)
	UKRAINIAN ANTARCTIC AKADEMIK VERNADSKY STATION	
13	Andriy Zalizovski <sup>1,2,3</sup> , Volodymyr Lisachenko <sup>1</sup> , Bogdan Gavrylyuk <sup>1,2</sup>	
13	Institute of Radio Astronomy of NAS of Ukraine, Kharkiv, Ukraine	
	<sup>2</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	
		14:00-14:20
	Ukraine, Kyiv, Ukraine <sup>3</sup> Space Passayah Contra of Polish Academy of Sciences, Poland	(11.00-11.20 UTC)
	<sup>3</sup> Space Research Centre of Polish Academy of Sciences, Poland THE ROLE OF SPORADIC E LAYERS IN LONG DISTANCE HF PROPAGATION TOWARD	,
1.4	THE ANTARCTIC PENINSULA	
14	A. A. Shvets <sup>1</sup> , O.V. Budanov <sup>2</sup> , O.V. Koloskov <sup>2,3</sup> , A.P. Nickolaenko <sup>1</sup> , A.V. Shvets <sup>1</sup>	
	<sup>1</sup> O.Ya. Usikov Institute for Radiophysics and Electronics of the National Academy of Sciences of	14.00 14.40
	Ukraine, Kharkiv, Ukraine	14:20-14:40
	<sup>2</sup> Institute of Radio Astronomy of the National Academy of Sciences of Ukraine, Kharkiv, Ukraine	(11.20-11.40 UTC)
	<sup>3</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	
	Ukraine, Kyiv, Ukraine	

	DEVIATIONS OF THE AZIMUTH OF ELF BURSTS ASSOCIATED WITH THE "DAY-	
	NIGHT" NONUNIFORMITY	
15	A.V. Shvets, A. A. Shvets	
	O.Ya. Usikov Institute of Radio Physics and Electronics of the National Academy of Sciences of	14.40 15.00
	Ukraine, Kharkiv, Ukraine	14:40-15:00 (11.40-12.00 UTC)
	TOMOGRAPHY OF THE WORLD THUNDERSTORM ACTIVITY: MODELING FOR TWO	(11.40-12.00 UTC)
	SUBPOLAR AND ONE MIDLATITUDE SCHUMANN RESONANCE OBSERVATORIES	
16	G.P. Milinevsky <sup>1,2</sup> , A.V. Grytsai <sup>1</sup> , O.M. Evtushevsky <sup>1</sup> , A. Klekociuk <sup>3,4</sup> , O. Ivaniha <sup>1</sup> , Y. Wang <sup>5</sup>	
	<sup>1</sup> Taras Shevchenko National University of Kyiv, Kyiv, Ukraine	
	<sup>2</sup> National Antarctic Scientific Center, Kyiv, Ukraine	15:00-15:20
	<sup>3</sup> Antarctic Climate Program, Australian Antarctic Division, Kingston, Australia	(12.00-12.20 UTC)
	<sup>4</sup> Department of Physics, University of Adelaide, Adelaide, Australia	,
	<sup>5</sup> College of Physics, International Center of Future Science, Jilin University, Changchun, China POLAR STRATOSPHERIC WARMINGS AND WEATHER PATTERN IN UKRAINE	
17	D. Pishniak <sup>1</sup> , B. Beznoshchenko <sup>2</sup> , O. Pavlenko <sup>3</sup>	
	<sup>1</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	
	Ukraine, Kyiv, Ukraine	15 20 15 40
	<sup>2</sup> The Hebrew University of Jerusalem, Rehovot, Israel	15:20-15:40
	<sup>3</sup> Central Geophysical Observatory named after Boris Sreznevsky, Kyiv, Ukraine	(12.20-12.40 UTC)
	MESOSCALE ATMOSPHERIC PROCESSES OVER THE AKADEMIK VERNADSKY	
	STATION REGION BASED ON SIMULATION AND IN-SITU RESULTS	
18	Chyhareva A. <sup>1,2</sup> , Krakovska S. <sup>1,2</sup> , Gorodetskaya I. <sup>3</sup> , Pishniak D. <sup>2</sup>	
	<sup>1</sup> National Antarctic Scientific Center of Ukraine, Ministry of Education and Science of Ukraine,	
	Kyiv, Ukraine	
	<sup>2</sup> Ukrainian Hydrometeorological Institute, Kyiv, Ukraine	15:40-16:00
	<sup>3</sup> Centre for Environmental and Marine Studies, Department of Physics, University of Aveiro,	(12.40-13.00 UTC)
	Portugal PRELIMINARY RESULTS OF PolarWRF APPLICATION FOR CLOUD AND	
	PRECIPITATION STUDY AT UKRAINIAN ANTARCTIC AKADEMIK VERNADSKY	
	STATION	
19	V.F.Martazinova, V.E.Tymofeyev	
	Ukrainian Hydrometeorological Institute, the State Emergency Service of Ukraine, Kyiv, Ukraine	16:00-16:20
	TOTAL OZONE ANOMALY OVER ANTARCTICA AND PECULIARITIES OF THE	(13.00-13.20 UTC)
	ATMOSPHERIC CIRCULATION	
20	M. Savenets <sup>1</sup> , L. Pysarenko <sup>1</sup> , D. Pishniak <sup>2</sup>	
	<sup>1</sup> Ukrainian Hydrometeorological Institute, State Emergency Service of Ukraine and National	
	Academy of Sciences of Ukraine, Kyiv, Ukraine	16:20-16:40
	<sup>2</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of	(13.20-13.40 UTC)
	Ukraine, Kyiv, Ukraine	(10.20 10.10 010)
	THE RELATIONSHIP BETWEEN LAND SURFACE TEMPERATURE AND	
21	METEOROLOGICAL CONDITIONS ON THE ARGENTINE ISLANDS	
21	<u>V.E.Tymofeyev</u> , O.V. Mazepa, O.G. Tatarchuk <i>Ukrainian Hydrometeorological Institute, the State Emergency Service of Ukraine, Kyiv, Ukraine</i>	16:40-17:00
	CURRENT STATE OF GLACIOCLIMATE AT THE NORTH ANTARCTIC PENINSULA	(13.40-14.00 UTC)
22	S. V. Klok <sup>1</sup> , A. O. Kornus <sup>2,3</sup> , O. H. Kornus <sup>2</sup>	
	<sup>1</sup> Ukrainian Hydrometeorological Institute of State Service of Emergencies of Ukraine and	
	National Academy of Sciences of Ukraine, 37, Prospekt Nauky, Kyiv, 03028, sklok_8@ukr.net	
	<sup>2</sup> Sumy State University, Rymsky-Korsakov Street, 2, Sumy, 40007,	
	a.kornus@ecolog.sumdu.edu.ua	17:00-17:20
	<sup>3</sup> Sumy State Pedagogical University named after A. S. Makarenko, Romenska Street, 87, Sumy,	(14.00-14.20 UTC)
	Ukraine, 40002, olesyakornus@gmail.com	
	THE COMPONENTS OF SEASONAL VARIABILITY OF THE SNOW DEPTH IN THE	
	AREA OF THE UKRAINIAN ANTARCTIC AKADEMIK VERNADSKY STATION	
l		

#### May 13, 2021 (Thursday) 10.00 – 11.45 Kyiv time zone (07.00 – 08.45 UTC)

#### PHYSICAL SCIENCES

# Chairpersons: Oleksandr Koloskov, Andriy Zalizovski

1	V. Komorin, V. Bolshakov, Y. Dikhanov, E. Melnik  Research Institution "Ukrainian scientific center of Ecology of Sea", Odesa, Ukraine  MAIN RESULTS OF OCEANOGRAPHIC RESEARCH IN THE SOUTH ATLANTIC AND  THE ATLANTIC SECTOR OF THE SOUTHERN OCEAN ACCORDING TO THE SEASON  DATA 2018-2020	10:00-10:20 (07.00-07.20 UTC)
2	P. Zabroda <sup>1</sup> , L. Pshenichnov <sup>1</sup> , D. Marichev <sup>2</sup> <sup>1</sup> Institute of Fisheries and Marine Ecology, Berdiansk, Ukraine <sup>2</sup> LLC Fishing Company Neptuno, Odessa, 67500 Ukraine  THE RESULTS OF OBSERVATIONS USING AN UNDERWATER VIDEO RECORDING SYSTEM IN THE WEDDELL SEA IN 2020	10:20-10:40 (07.20-07.40 UTC)
3	L. Pshenichnov Institute of Fisheries and Marine Ecology, Berdiansk, Ukraine HISTORY AND MODERNITY OF WORK OF FISHING VESSELS OF UKRAINE IN THE WATERS OF THE SOUTHERN OCEAN	10:40-11:00 (07.40-08.00 UTC)
	POSTERS:	11:00-11:45 (08.00-08.45 UTC)
1	Yu.S. Andrienko <sup>1</sup> , G.P. Milinevsky <sup>1,2</sup> , V.O. Danylevsky <sup>1</sup> <sup>1</sup> Taras Shevchenko National University of Kyiv, Ukraine <sup>2</sup> State institution National Antarctic Scientific Center Ministry of Education and Science of Ukraine, Kyiv, Ukraine  VERTICAL DISTRIBUTION OF OZONE IN THE ATMOSPHERE OVER KYIV AND OVER THE UKRAINIAN ANTARCTIC AKADEMIK VERNADSKY STATION ACCORDING TO UMKEHR DATA	11:00-11:15 (08.00-08.15 UTC)
2	Yu.V. Gorishnya  O. Ya. Usikov Institute for Radiophysics and Electronics of the National Academy of Sciences of Ukraine; Kharkov, Ukraine  SPECTRA OF TWEEK ATMOSPHERICS AND THE IMPACT OF THEIR PATHS'  ORIENTATION REGARDING THE GEOMAGNETIC FIELD THROUGH OBSERVATIONS  AT UKRAINIAN ANTARCTIC AKADEMIK VERNADSKY STATION	11:15-11:30 (08.15-08.30 UTC)
3	O.M. Evtushevsky <sup>1</sup> , G.P. Milinevsky <sup>1,2</sup> and A.V. Grytsai <sup>1</sup> <sup>1</sup> Taras Shevchenko National University of Kyiv, Kyiv, Ukraine <sup>2</sup> State Institution National Antarctic Scientific Center Ministry of Education and Science of Ukraine, Kyiv, Ukraine  ANNUAL CYCLE IN THE NORTHERN HEMISPHERE POLAR-TO-MIDLATITUDE  OZONE AND ITS RELATION TO STATIONARY WAVE STRUCTURE	11:30-11:45 (08.30-08.45 UTC)

May 12, 2021 (Wednesday) 10.00 – 12.00 Kyiv time zone (07.00 – 09.00 UTC)

# NEW TECHNOLOGIES AND EQUIPMENT

# Chairpersons: Viacheslav Marchenko

1	V.Bazhenov, O. Lukianchenko, M. Vabishchevych, O. Paliy  Kyiv National University of Construction and Architecture (KNUCA), Kyiv, Ukraine  PRESSING ISSUES OF TROUBLE-FREE OPERATION AND MODERNIZATION OF THE  INFRASTRUCTURE OF THE UKRAINIAN ANTARCTIC AKADEMIK VERNADSKY  STATION	10:00-10:20 (07.00-07.20 UTC)
2	S. Tsybulnyk  Igor Sikorsky Kyiv Polytechnic Institute, Kyiv, Ukraine  CURRENT STATE AND PERSPECTIVES ON FUEL TANK PROTECTION	10:00-10:40 (07.20-07:40 UTC)
3	Viktor B. Raspopov, Vadim M. Semyanovsky Research and Training Center for Applied Informatics of the National Academy of Sciences of Ukraine, Kyiv, Ukraine YOUTH ECOLOGICAL PROJECT "SOLAR-HYDROGEN ENERGY FOR UKRAINIAN ANTARCTIC AKADEMIK VERNADSKY STATION"	10:40-11:00 (07.40-08.00 UTC)
	POSTERS:	11:00-12:20 (08.00-09.20 UTC)
1	A. Marusenkov <sup>1</sup> , S. Leonov <sup>1</sup> , V. Korepanov <sup>1</sup> , Yu. Otruba <sup>2</sup> , M. Leonov <sup>2</sup> <sup>1</sup> Lviv Center of Institute for Space Research of NAN and SSA of Ukraine, Lviv, Ukraine <sup>2</sup> State Institution National Antarctic Scientific Center, Ministry of Education and Science of Ukraine, Kyiv, Ukraine  UPGRADE OF THE GEOMAGNETIC OBSERVATORY "ARGENTINE ISLANDS": NEW TECHNOLOGIES AND EQUIPMENT	11:00-11:20 (08.00-08.20 UTC)
2	Yu. M. Posypaiko  E.O. Paton Institute of Electric Welding, Kyiv, Ukraine  MONITORING OF TECHNICAL CONDITION OF TANKS AT UKRAINIAN ANTARTIC  AKADEMIK VERNADSKY STATION	11:20-11:40 (08.20-08.40 UTC)
3	G. Lizunov, L. Galkovska, O. Parnowski, O. Protas, O. Piankova, V. Reshetnyk Space Research Institute NAS of Ukraine and SSA of Ukraine, Kyiv, Ukraine ON THE ANTARCTIC RESEARCH DATA INFORMATION SYSTEM CONCEPT	11:40-12:00 (08.40-09.00 UTC)