



CONFERENCE PROGRAM

VIII GLOBAL CONFERENCE ON NEAR SPACE INDUSTRIALIZATION

Maryina Gorka, Republic of Belarus

September 12–13, 2025

DAY ONE – SEPTEMBER 12, 2025		
1	Transfer from Avtozavodskaya Metro Station, Minsk	8:00
2	Participant Registration. Welcome coffee	9:00–9:40
	EcoSpace Alley – Traditional Tree Planting Ceremony	9:40–10:00
3	Official Opening of the Conference <ul style="list-style-type: none"> Opening remarks by Anatoli Unitsky, Chairman of the Organizing Committee Presentation video on the uSpace program Welcome speeches by honored guests 	10:00–11:00 10:10–10:20 10:20–10:28 10:28–11:00
4	Session 1: Geocosmic and Geotechnical Sciences, Technologies, Materials, and Resources Plenary Video Presentation: <ul style="list-style-type: none"> A. Unitsky The Role of String Technologies in Future Terrestrial, Geocosmic, and Space Logistics Presentation: <ul style="list-style-type: none"> V. Looksha Modeling the Flight of the General Planetary Vehicle Presentation: <ul style="list-style-type: none"> F. Karpei Stabilization of the General Planetary Vehicle Relative to the Takeoff and Landing Overpass Panel Discussion: New Solutions for the uSpace Geocosmic Program <ul style="list-style-type: none"> I. Dyakov Aerodynamic Effects of Mesh Enclosure Structures in the General Planetary Vehicle Overpass 	11:00–12:50 11:00–11:35 11:35–11:50 11:50–12:05 12:05–12:30

	<ul style="list-style-type: none"> • E. Bobr Life Support Systems for the Passenger Module of the General Planetary Vehicle • K. Dubovik Biosphere-Based Human Life Support Systems in the EcoCosmoHouse Project <p>Expert Presentation:</p> <ul style="list-style-type: none"> • Yu. Pleskachevsky Fundamental Principles of Scientific Experiment Methodology 	12:30–12:50
5	Official Conference Photo Session	12:50–13:00
6	Lunch Break	13:00–14:00
7	<p>Poster Session & Exhibition Tour</p> <p>Presentation:</p> <ul style="list-style-type: none"> • N. Pershay Optimization of Physicochemical Properties of Coal-Water Fuel Using Electrohydraulic Shock Technology <p>Presentation:</p> <ul style="list-style-type: none"> • E. Novitskaya Information technologies for Resource Management in Near Space: Challenges and Solutions <p>Presentation:</p> <ul style="list-style-type: none"> • A. Pavlyuchenko Aquaculture Biotechnology of the African Clarias Catfish in Closed Ecosystem <p>Presentation:</p> <ul style="list-style-type: none"> • S. Arnaut Sustainable Agriculture with uTerra and Biodegradable Polymers <p>Technology Demonstrations:</p> <ul style="list-style-type: none"> • Biotechnology Department Innovations • uTerra – Enriching the Soil! • Geocosmic and Geotechnical Developments • UVR Innovations • UNIMO Developments • 3D Tour of the General Planetary Vehicle (VR-Zone) 	<p>14:00–14:05</p> <p>14:05–14:10</p> <p>14:10–14:15</p> <p>14:15–14:20</p> <p>14:20–15:00</p>

8	Drone Show	15:00–15:30
9	<p>Session 1 Continued: Geocosmic and Geotechnical Sciences, Technologies, Materials, and Resources</p> <p>Panel Discussion: Materials and Innovations for Closed Ecosystems</p> <ul style="list-style-type: none"> • S. Protasov Sorbent Preparation from Cattail Fluff for Water Purification Systems in Closed Ecosystems • M. Mozgalyova Testing Quartz-Filled Composite Materials for uWay Launch Complex Construction • I. Naletov Use of Fungal Mycelium for Analog Leather Production in the Textile Industry <p>Presentation:</p> <ul style="list-style-type: none"> • R. Khachaturov Space-Time Continuum Curvature as a Means of Travel According to the Hyperuniverse Theory <p>Presentation:</p> <ul style="list-style-type: none"> • M. Saveliev Gas Turbine Installations for Spaceport Power Supply: Implementation of A2GTP Software <p>Presentation:</p> <ul style="list-style-type: none"> • F. Verevka Bioprinting in Space: Technical Challenges and Application Prospects 	<p>15:30–16:45</p> <p>15:30–16:00</p> <p>16:00–16:15</p> <p>16:15–16:30</p> <p>16:30–16:45</p>
10	<p>Session 2: Energy and Information Geocosmic Sciences, Technologies, Materials, and Resources</p> <p>Presentation:</p> <ul style="list-style-type: none"> • V. Klyushnikov Systemic Analysis of Extraterrestrial Resource Development for Near-Space Industrialization <p>Presentation:</p> <ul style="list-style-type: none"> • O. Solenaja Intelligent Manufacturing Control of Spacecraft Using Digital Twins 	<p>16:45–17:45</p> <p>16:45–17:00</p> <p>17:00–17:15</p>

	Presentation: <ul style="list-style-type: none"> • M. Artyomova Neural Network Protocol for Self-Healing Navigation Data in Autonomous Spacecraft 	17:15–17:30
	Presentation: <ul style="list-style-type: none"> • A. Griboedova Automated Microclimate Control System for Biosphere Tent 	17:30–17:45
11	Free Time	17:45–18:00
12	Closing Dinner – Barbecue	18:00–19:00
13	Transfer to Minsk	19:15

DAY TWO – SEPTEMBER 13, 2025		
1	Transfer from Avtozavodskaya Metro Station, Minsk	9:00
2	Welcome coffee	10:00–10:40
3	<p>Session 3: Ecological and Biological Aspects of Closed Biosphere-Type Ecosystems on Earth and in Space</p> <p>Presentation:</p> <ul style="list-style-type: none"> • O. Mastickaya International project SIRIUS-23 <p>Panel Discussion: Innovative Approaches to Crop Cultivation in Closed Ecosystems</p> <ul style="list-style-type: none"> • A. Koleda Development of Seed Coating Compositions for EcoCosmoHouse Conditions • E. Kryukov Humusoponics as a Promising Method for Growing Tomatoes (<i>Solanum lycopersicum</i> L.) in EcoCosmoHouse • K. Boiko Substrate Selection for Microgreens Cultivation in a Closed EcoCosmoHouse System • V. Zayats Amaranth (<i>Amaranthus hypochondriacus</i> L.) Collection Nursery for Cultivation in Closed Ecosystem <p>Presentation:</p> <ul style="list-style-type: none"> • N. Zyl Features of Using the uTerra Fertility Elixir in the EcoSpace Program <p>Panel Discussion: Fertility Management in Closed Systems</p> <ul style="list-style-type: none"> • T. Pyatakova Impact of Nitrogen-Fixing Bacteria on Nitrogen Content in Substrate and Plants • M. Rakova Effect of Nitrogen Fixers on the Economic Value of Soft Wheat in EcoCosmoHouse • D. Konyok Structure and Biological Activity of Humic Acids: Application Prospects in EcoCosmoHouse 	<p>10:40–13:00</p> <p>10:40–11:00</p> <p>11:00–11:40</p> <p>11:40–11:55</p> <p>11:55–12:25</p>

	<p>Panel Discussion: Biomedical Support in Closed Ecosystems</p> <ul style="list-style-type: none"> • N. Zheshko Correction Method for Motor Disorders in Laboratory Mice under Antiorthostatic Hypokinesia • V. Kornei Adaptogens to Enhance Stress Resistance of EcoCosmoHouse Residents: Review and Experimental Study • E. Veremko Cosmetic Products for Preventing Symptoms of Reduced Gravity in EcoCosmoHouse • O. Shigalova Use of Biopolymers for Preserving Closed Biosphere-Type Ecosystems 	12:25–13:00
4	Lunch Break	13:00–14:00
5	<p>Session 4: Social, Legal, Political, and Financial Aspects of Human Civilization Development on Earth and in Space</p> <p>Presentation:</p> <ul style="list-style-type: none"> • E. Petrov Socio-Psychological Aspects of the EcoSpace Program Implementation: From Consumer Society to Creative Society <p>Panel Discussion: Transport Infrastructure and New Urbanism of uCity</p> <ul style="list-style-type: none"> • A. Borovik Justification for the Phased Construction of the General Planetary Vehicle Launch Overpass • M. Davydik System-Forming Premises, Terms and Issues of the New Urban Concept uCity • E. Vlasovets Socio-Economic Effects of Implementing the New Linear Urban Concept uCity <p>Presentation:</p> <ul style="list-style-type: none"> • O. Zaretskiy African Infrastructure and Transport Corridor as a Precursor to the Equatorial Linear City 	<p>14:00–16:00</p> <p>14:00–14:15</p> <p>14:15–14:45</p> <p>14:45–15:00</p>

	<p>Presentation:</p> <ul style="list-style-type: none"> • A. Poteryaiko Unitsky Engineering School as a Tool for Personnel Renewal in the Union State <p>Panel Discussion: Near-Space Industrialization – Law, Strategy, Technology</p> <ul style="list-style-type: none"> • A. Kazakevich Legal Issues of Intellectual Property Creation in Outer Space • S. Artyushevsky Science and the Crisis of Modern Civilization: Space Industrialization and Non-Rocket Geocosmic Technologies • I. Patsenko Industrialization and Exploration of Near Space: A Decade Leap into the Future <p>Presentation:</p> <ul style="list-style-type: none"> • A. Gurinovich Justification of Decision Support Mechanisms in Project Management Systems of the EcoSpace Program 	<p>15:00–15:15</p> <p>15:15–15:45</p> <p>15:45–16:00</p>
6	Ceremonial Signing of the Agreement	16:00–16:30
7	<p>Conference Closing Ceremony:</p> <ul style="list-style-type: none"> • Summary of Results • Announcement of Conference Resolution • Closing Remarks by Anatoli Unitsky, Chairman of the Organizing Committee of the VII Global Conference on Near-Space Industrialization • Autograph Session 	16:30–17:30
8	Final Photo Session	17:30–18:00
9	Networking. Tasting by Unitsky Farm Enterprise	18:00–19:00
10	Final Gala Dinner	19:00–21:00
11	Festive Fireworks Show	21:00
12	Transfer to Minsk	21:30