



Smart and Sustainable Cities Online Conference 2020

JULY 8 – 10, 2020

AGENDA

DAY 1 – 8 JULY 2020 (WEDNESDAY)	DAY 2 – 9 JULY 2020 (THURSDAY)	DAY 2 – 10 JULY 2020 (FRIDAY)
10:30 – 11:30 Plenary session	10:00 – 11:30 Session 1 (Part 2)	10:00 – 11:30 Session 4
11:30 – 13:00 Session 1 (Part 1)	11:30 – 13:00 Round table 1	11:30 – 13:00 Session 8
13:00 – 13:30 Lunch break	13:00 – 13:30 Lunch break	13:00 – 13:30 Lunch break
13:30 – 14:30 Keynote by A. Baklanov	13:30 – 15:00 Session 5	13:30 – 14:30 Keynote by C. Calfapietra
14:30 – 16:00 Session 2	15:00 – 16:00 Poster session	14:30 – 16:30 Session 7
16:00 – 17:00 Poster session	16:00 – 17:00 Keynote by P. Groffman	16:30 – 18:00 Round table 2
17:00 – 17:30 Opening ceremony	17:00 – 18:30 Session 6	18:00 – 18:30 Closing ceremony
17:30 – 19:00 Round table 3		18:30 – 19:00 Short summary of the conference





Smart and Sustainable Cities Online Conference 2020

JULY 8 – 10, 2020

PROGRAM

DAY 1 - 8 July 2020 (WEDNESDAY)

10:30 – 11:30

Plenary session

[Zoom link](#)

10:30 – 11:00

A new concept of tree-safety-evaluation

Frank Rinn, Rinntech

11:00 – 11:30

Climate-smart forestry in mountain regions: an EU initiative

Roberto Tognetti, Università degli Studi del Molise

11:30 – 13:00

Session 1 (part 1)

Monitoring and assessment of tree health and stability in cities

[Zoom link](#)

Conveners:

Ivan Geraskin (Zdorovy Les, Russia)

Riccardo Valentini (RUDN, Russia/ UNITUS, Italy)

11:30-11:45

Phytomonitoring of landscape objects in urban agglomeration

Lidiya Seraya, Galina Larina

11:45-12:00

Assessment of tree stem inner state using technical tools as a component of a comfortable and safe urban green infrastructure

A. Antsiferov

12:00-12:15

How to restore forests in specially protected natural areas of Moscow?

Sergey Rysin

12:15-12:30

Evaluation of urban environment pollution by morphological indicators of developmental stability of petiole oak (*Quercus robur* L.)

Darya Skorobogatova

12:30-12:45

GPR tomography as applied to examination of live tree trunks

Sudakova M.S., Terentieva E.B., Kalashnikov A.Yu.

12:45-13:00

Crown and stem stabilization systems as a way to ensure safe environment

I. Geraskin

13:00 – 13:30

Lunch break



13:30 – 14:30

Keynote

Alexander Baklanov

World Meteorological Organization (WMO)

[Zoom link](#)

14:30 – 16:00

Session 2

Urban climate and air quality

(PEEX "Pan-Eurasian Experiment" Session)

[Zoom link](#)

Conveners:

Pavel Konstantinov (RUDN/MSU, Russia)

Michael Leuchner (RWTH, Germany)

14:30-14:45

Assessment of the influence of various tree species and their parameters on the behavior of wind flows in urban environments (on the example of the RUDN University campus, Moscow)

Sergey Bukin, Pavel Konstantinov, Riccardo Valentini, Vyacheslav Vasenev

14:45-15:00

Culturable airborne fungi in three locations on the Kola Peninsula: urban, forest and coastal

Maria Korneykova, Anastasiya Soshina

15:00-15:15

Numerical modelling of local atmospheric processes above a city

A.V. Starchenko, A.A. Bart, E.A. Danilkin, L.I. Klzhner, S.A. Prohanov, E.A. Shelmina

15:15-15:30

AIR QUALITY SHORT-TERM CONTROL IN AN URBAN REGION

Yuri. N. Skiba, David Parra-Guevara

15:30-15:45

Application of the crowdsourced meteorological data for urban climate research and monitoring applications on the example of Moscow megacity

Mikhail Varentsov, Samsonov T.E., Kargashin P.E, Konstantinov P.I.

15:45-16:00

Particulate matter as a vector of distribution of microorganisms in urban air: Microair

Olga Gavrichkova, Kristina Ivashchenko, Pavel Konstantinov, Maria Korneykova, Claudi Mattioni, Andrej Novikov, Paola Pollegioni, Olesya Sazonova, Martina Ristorini, Gregorio Sgrigna, Marina Slukovskaya, Anna Vetrova, Alexej Yaroslavtsev, Viacheslav Vasenev

16:00 – 17:00

Poster session 1

[Zoom link](#)

MORPHOLOGICAL AND MACROANATOMIC INDICATORS OF LONG-TERM AND CURRENT STATE OF TREES OF QUERCUS ROBUR L.

Kaplina N.F.

Green carcass and green infrastructure of the city

Alexander Vodianik

Assessment of the stability of Larix sibirica Ledeb. on urban areas of the Kola North in the zone of influence of railway transport

Natalya V. Saltan, Ekaterina A. Sviatkovskaya



Ecological assessment of the use of rapeseed plants for the improvement of chemically degraded industrial and urban areas based on ecophysiological indicators

Andreeva I., Samardzic M., Vasenev I.I.

Carbon various forms distribution in the urban soils profile of the Rostov agglomeration

Pavel N. Skripnikov, Suleiman S. Tagiverdiev, Sergei N. Gorbov, Olga S. Bezuglova

Activity concentration of radionuclide and total content of heavy metals in city soil cover

D.A. Kozyrev, S.N. Gorbov, O.S. Bezuglova, E.A. Buraeva

Evaluation of the effective fertility of urban soils

Galina Larina, Lydia Seraya

Daily dynamics of soil CO₂ emission in condition of Moscow lawn ecosystems with abnormally warm fall in 2019

Andrei Stepanov, Ivan Vasenev, Solomon Melese

Can gypsum alleviate phytotoxicity of soils polluted by copper smelting?

Tatiana A. Dubrovina, Evgenii L. Vorobeichik, Elvira A. Dovletyarova, Vasyl A. Brykov, Ramilla A. Brykova, Michel Mench, Alexander Neaman, Mikhail M. Karpukhin

Soil monitoring database improvement in Moscow city

Prokhorov I.S., Sorokin A.E., Balabko P.N., Metechko L.B.

Toxic effects of tobacco butts on soil worms in densely populated cities

17:00 – 17:30

Opening ceremony

[Zoom link](#)

17:30 – 19:00

Round table 3

University campus as an open lab for sustainable green solutions and innovative education synergy

[Zoom link](#)



DAY 2 - 9 July 2020 (THURSDAY)

Session 1 (part 2)

10:00 – 11:30

Monitoring and assessment of tree health and stability in cities

[Zoom link](#)

Conveners

Lidia Seraya (All-Russian Research Institute of Phytopathology, Russia)

Galina Larina (N.V. Tsitsin Main Botanical Garden RASc, Russia)

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|-------------|---|
| 10:00-10:13 | <p>Variability of Infiltration Rates at Selected Green Infrastructure Sites in New York City
Bulent Alagoz, Zhongqi (Joshua) Cheng</p> |
| 10:13-10:26 | <p>The use of modern technologies for the conservation of old trees in the gardens of the Russian Museum
Zhukova Ekaterina</p> |
| 10:26-10:39 | <p>Assessment of tree care efficiency using dendrochronological methods
Cherakshev A.V.</p> |
| 10:39-10:52 | <p>Real time monitoring of tree health in Moscow megapolis
A. Yaroslavtsev</p> |
| 11:52-11:05 | <p>Pre-processing and Analysis of TreeTalker Data: An Example of Chestnut Forest
Nafeesa Samad</p> |
| 11:05-11:18 | <p>Urban Tree Risk Map of Moscow. An approach based on the wind speed and location
Maria Velmitskaya, Riccardo Valentini, Sergio Noce</p> |
| 11:18-11:30 | <p>Instrumental diagnostics of some old-aged introduced trees in the plant collection of the Nikitsky Botanical Gardens
V. Gerasimchuk</p> |

Round table 1

[Zoom link](#)

11:30 – 13:00

New techniques in monitoring urban infrastructure: from science to policy-makers (with the support of the Department for environmental management and protection of the city of Moscow city)

13:00 – 13:30

Lunch break



Session 5

13:30 – 15:00

Soil quality assessment for sustainable management of urban soil resources

[Zoom link](#)

Conveners

Ivan Vasenev (RSAU, Russia)

Jetse Stoorvogel (WUR, Netherlands)

13:30-13:45

Urbopedogenetic transformations of chernozems in the Rostov agglomeration (Russia)

Gorbov S.N., Bezuglova O.S., Morin T.V.

13:45-14:00

Thresholds of Zn toxicity to perennial ryegrass in acidic peat spiked with zinc carbonate

Vasyl A. Brykov, Ramilla A. Brykova, Elvira A. Dovletyarova, Alexander Neaman

14:00-14:15

The influence of biochar on agricultural soils in the south of the Far East

Nesterova O.V., Semal V.A., Bovsun M.A., Vasenev I.I., Brikmans A.V., Karpenko T.Y., Sakara N.A.

14:15-14:30

Comparison of four soil lead analysis methods and advancing primary prevention

Christopher R. Gonzales, Eric T. Powell, Trevor Bell, Anna A. Paltseva, Howard W. Mielke

14:30-14:45

Soil functional quality assessment in Kursk different functional zones for environmentally friendly land-use management

Sarzhhanov D.

14:45-15:00

Agroecological evaluation of soil quality variability for urban farming in case of RSAU-MTAA Ecological Station

Alchurazova A.D., Belolipetskiy P.S., Morev D.V.

15:00 – 16:00

Poster session 2

[Zoom link](#)

Environmental, social and economical potentials of urban protected areas: case study of Severny and Altufjevsky reserves in Moscow, Russia

V.A. Kryukov

Recreational and nature conservation functions of protected areas in Moscow: recent transformation

K. Aleksandriiskaia, O. Klimanova

Environmental assessment of thermal energy facilities impact on ecosystem services for the production of oxygen in urban settlements

Grigorii E. Artamonov, Ivan I. Vasenev, Vladimir A. Gutnikov, Viktoria V. Erofeeva

Application of the ecosystem service concept in Russian cities - the case study-city of Tyumen

Liliia Sulkarnaeva, Irina Akhmedova, Valentina Dobryakova, Alexander Daizel, Nataliia Zherebyateva



Effects of Small Water Bodies on the Urban Heat Island in a Medium Sized City in Germany

Ketzler, G., Goertz, S., Leuchner, M.

Estimation of greenhouse gases emissions from municipal and transport sectors in St. Petersburg city

Bekteva N.M., Dekhnich V.S.

Urban climate studies and young scientists winter school in Russian Arctic

P. Konstantinov, V. Platonov, Yu. Martynova, V.Vasenev, A.Timazhev, G.Surkova, P.Shabanov, A.Osipov, S.Shuvalov

Assessment of heavy metal pollution of soils with different technogenic pressure by land-use categories (a case study of Murmansk region, Russia)

Natalia Saltan, Irina Mikhaylova, Alexandra Khvostova, Eugeny Zarov, Svetlana Drogobuzhskaya, Marina Slukovskaya

The concept of ecosystem services in Russian urban legislation

Olga Maximova

Keynote

16:00 – 17:00

Peter Groffman

[Zoom link](#)

CUNY Advanced Science Research Center, Brooklyn College, USA

Session 6

17:00 – 18:30

Biogeochemical cycles in urban soils and ecosystems

[Zoom link](#)

Conveners

Viacheslav Vasenev (RUDN, Russia)

Peter Groffman (CUNY, US)

17:00-17:15

Approaches for Soil Health Evaluation

Y. Kuzyakov

17:15-17:30

Impact of soil salinization on functioning of primary producers and decomposers in urban lawns: results from mesocosm experiment

Olga Gavrichkova, D. Liberati, R. Brykova, M. Cristina Moscatelli, S. Moscatello

17:30-17:45

Carbon and Water Fluxes of an Urban Forest in Moscow

Reitz, O., Yaroslavtsev, A., Vasenev, I., Vasenev, V., Leuchner, M.

17:45-18:00

Soil Carbon Dioxide Emission in Extreme Urban Environment of the Center of Moscow Megapolis

Andrey Dolgikh, Dmitriy Petrov, Inna Brianskaia, Sofyia Demina, Ksenia Mahinya, Olga Romzaikina, Aleksandr Dobrianskii and Viacheslav Vasenev

18:00-18:15

Growing in lead contaminated urban soils: decision making based on scientific evidences

Z. Cheng

18:15-18:30

Mining wastes as a geochemical barrier for the soil remediation under the ongoing Cu-Ni pollution in the Russian Arctic

Marina Slukovskaya, Irina Kremenetskaya, Svetlana Drogobuzhskaya, Liubov Ivanova, Andrey Novikov, and Irina Mosendz



DAY 3 - 10 July 2020 (FRIDAY)

10:00 – 11:30 **Session 4** [Zoom link](#)
Assessment, modelling and mappings urban ecosystem services

Conveners

Victor Matasov (RUDN, Russia)

Luis Inostroza (RUB, Germany)

10:00-10:15 **Session Introduction: Ecosystem services and urbanization. Spatially explicit assessment**
 Luis Inostroza

10:15-10:30 **Assessment of ecosystem services at city-level in Russia: main approaches and results**
 Oxana Klimanova, Olga Illarionova

10:30-10:45 **Urban ecosystem services research: a review of the state of the art in Russia**
 Lilia Sulkarnaeva, Diana Dushkova, Dagmar Haase, D. Gaeva, Victor Matasov

10:45-11:00 **Crowdsourcing geo-information on landscape perceptions and cultural ecosystem services**
 Martina Bubalo, B. Zanten, P. Verburg

11:00-11:15 **Ecosystem services of Singapore urban geosystems: assessment and mapping**
 Margarita Li, N. N. Alekseeva

11:15-11:30 **How could we consider domestic animals in ecosystem services assessment?**
 Anastasia Konstantinova, Victor Matasov

11:30 – 13:00 **Session 8** [Zoom link](#)
Health risks in urban environment

Conveners

Natalya Tataurshchikova (RUDN, Russia)

Enkhtur Yadamsuren (Mongolian National University of Medical Science)

11:30-11:45 **Assessment of the pollen profile for implementation of the health-saving technologies in urban environment**
 N. Tataurshchikova

11:45-12:00 **Unfavorable impact of the urbanization on the immune antiviral protection in children: the relationship with recurrent respiratory infections**
 Nesterova I.V., Halturina E.O., Chudilova G.A., Kovaleva S.V.

12:00-12:15 **The role of urbanization in the development of atopic dermatitis**
 Temirlanov T.T., Khan V.



12:15-12:30	Influence of urban plantations on the condition of the autonomic nervous system of children Berezhanskii P.V., N. Tataurshchikova	
12:30-12:45	Harmful algal blooms of the arctic lakes: new environmental challenges Denisov D.	
12:45-13:00	Impact of Air Pollution on Public Health in Delhi Under a Changing Climate and Environment Shadananan Nair	
13:00 – 13:30	Lunch break	
13:30 – 14:30	Keynote Nature Based Solutions in the New Green Deal perspective <i>Carlo Calfapietra</i> <i>National Research Council, Italy</i>	
		Zoom link
14:30 – 16:30	Session 7 Nature-Based Solutions and Urban Farming: challenges and perspectives	
	<i>Conveners</i> <i>Alexey Sayanov (MSU/LAEN, Russia)</i> <i>Diana Dushkova (Humboldt University, Germany)</i>	
14:30-14:45	Transforming cities into organic food gardens: lessons learnt from the related European nature-based solutions projects and potential for Russian cities Dushkova Diana, Vasenev Viacheslav	
14:45-15:00	National park "Elk Island" in the Moscow region's green infrastructure Alla Pakina, Alla Lelkova	
15:00-15:15	Development of the sustainable substrates with a prolonged life time: key parameters, convenient and novel components Dmitrii Gosse	
15:15-15:30	Modelling the cooling energy saving potential of vertical greenery in summer for a set of building typologies in mid-latitudes Karin Hoffman, Tomaz Suklje, Thomas Nehls	
15:30-15:45	A Piezometer Method for Quantifying Stormwater Capture in Bioswales Zhongqi Cheng, Tarik Zarrouk, George Lozefski, John McLaughlin	



15:45-16:00 **Express-techniques for lawns' creation using moisture-resistant substrates**
Marina Slukovskaya, Liubov' Ivanova, Olga Romzaykina

16:00-16:15 **A roof of greenery, but a sky of unexplored relations – Meta-analysis of factors & properties that affect green roof hydrological & thermal performances**
Hanumesh M, Claverie R, Séré G.

16:15-16:30 **Nature-Based Solutions from Landscape Architecture Perspective**
Maria Ignatieva

Round Table 2

16:30 – 18:00 **Ecosystem services assessment for sustainable landscape architecture: from science to practice** [Zoom link](#)

18:00 – 18:30 **Closing ceremony** [Zoom link](#)

18:30 - 19:00 **Short summary of the conference** [Zoom link](#)