

CONFERENCE PROGRAM

*The conference schedule is set to Central European Time
(+2h Moscow Standard Time)*

16th December 2021

09:00 Online Platform Open

09:10 Welcome address by **Giovanna Mancini**

President of the Area of Research Rome1 and Director of the Institute for Biological Systems, CNR

Welcome address by **Dariya Pushkova**

Director of the Russian Centre for Science and Culture in Rome

SESSION: Green energy: light-harvesting, bioelectricity and biofuels

SESSION CHAIRS: Maya D. Lambreva, Francesco Milano

09:20 **Keynote Lecture by Massimo Trotta (IPCF CNR, Bari)**

Photosynthesis for a sustainable future

10:00 **Margarita Rodionova (IPP RAS, Moscow)**

Photosystem II in biohybrid devices for solar energy conversion

10:20 **Eugene Maximov (Moscow State University, Moscow)**

Design of hybrid photoactive proteins

10:40 **Maya D. Lambreva (ISB CNR, Rome)**

Analysing the energetic interactions of photosynthetic systems with carbon nanotubes

11:00 **Break**

11:10 **Matteo Grattieri (University of Bari, Bari)**

Bio-hybrid electrochemical systems for energy and the environment

11:30 **Azat Abdullatypov (IBBP RAS, Pushchino)**

Cytosolic hydrogenases: structure, function, possibilities of practical application

Green Christmas Session

PHOTOSYNTHETIC MICROORGANISMS FOR SUSTAINABLE DEVELOPMENT



SESSION: Space research

SESSION CHAIRS: *Vasily Terentyev, Maya D. Lambrev*

- 11:50 **Daniela Billi** (*Tor Vergata University, Rome*)
Desert cyanobacteria and in situ resource utilization to support humane space exploration
- 12:10 **Konstantin Klementiev** (*Moscow State University, Moscow*)
The effect of high-energy charged particles on primary processes of energy conversion in the photosynthetic apparatus of cyanobacteria
- 12:30 **Nicoletta La Rocca** (*University of Padova, Padova*)
Assessing cyanobacteria photosynthetic responses under red dwarfs simulated spectra

17th December 2021

SESSION: Production of compounds with high-added value

SESSION CHAIRS: *Maria Borisova-Mubarakshina, Tomas Morosinotto*

- 09:00 **Keynote Lecture by Alexei Solovchenko** (*Moscow State University, Moscow*)
Microalgal biotechnology and sustainable usage of phosphorus
- 09:40 **Giorgio Perin** (*University of Padova, Padova*)
Metabolic engineering of microalgae photosynthesis to increase productivity in photobioreactors
- 10:00 **Anna Paola Casazza** (*IBBA CNR, Milano*)
Keto-carotenoids production in model cyanobacteria
- 10:20 **Maria Sinetova** (*IPP RAS, Moscow*)
High-added-value compounds from microalgae and cyanobacteria
- 10:40 **Eleftherios Touloupakis** (*IRET CNR, Florence*)
Purple non-sulphur bacteria as a source of bioplastics
- 11:00 **Amina Antonacci** (*IC CNR, Rome*)
Microalgae polysaccharides: a novel bio-material for cultural heritage preservation

Green Christmas Session

PHOTOSYNTHETIC MICROORGANISMS FOR SUSTAINABLE DEVELOPMENT



11:20 **Brake**

SESSION: Sustainability and environment

SESSION CHAIRS: Taras Antal, Francesco Milano

11:30 **Marina Kozuleva** (IBBP RAS, Pushchino)

Molecular oxygen and evolution of the photosynthetic apparatus: the lessons of how to deal with what you produce and what kills you

11:50 **Olga Voitsekhovskaja** (BIN RAS, Saint-Petersburg)

Dual role of autophagy in astaxanthin production and cell survival of Haematococcus pluvialis under salinity

12:10 **Francesco Milano** (ISPA CNR, Lecce)

The potential of the phototrophic bacterium Rhodobacter sphaeroides in bioremediation of heavy metal ions

12:30 **Viviana Scognamiglio** (IC CNR, Rome)

Algal biosensors for environmental monitoring

12:50 **Taras Antal** (Pskov State University, Pskov)

Assessment of ecological state of natural water bodies

13:10 **Round table & Closing remarks**