



**Third International Conference on
Optical reflectometry, metrology & sensing 2020
September, 23-24, Perm, Russia**

Conference schedule

DAY 1, September, 23

**Session 1 - Fiber Optic Distributed Measurements and Metrology
2:00 PM (+5 GMT) Conference opening, welcome words**



Avishay Eyal
- *Invited speaker*
Professor, School of Electrical Engineering, Head of the Undergraduate Program,
Faculty of Engineering, Tel Aviv University, Tel Aviv, ISRAEL
Talk topic:
Sinusoidal Frequency Scan OFDR

2:15 PM
(+5 GMT)



Soma Sankaran
- *Conference partner*
Vice President of Denselight Semiconductors, SINGAPORE
Talk topic:
End to end platform agnostic solutions for sensing and datacom

2:45 PM
(+5 GMT)



Gilberto Brambilla
- *Invited speaker*
Professor, Laboratory Head at Optoelectronics Research
Centre (ORC), University of Southampton, Southampton,
UNITED KINGDOM
Talk topic:
Enhanced-scattering optical fibres for next generation
distributed sensing

3:00 PM
(+5 GMT)



Title and authors

Publ.

**Talk
mode**

**Qwstns
mode**

3:30 PM
(+5 GMT)

**Reflectometer for measuring losses in small-length
optical fibers based on registration of low-frequency
Raman scattering**
Gorshkov B. G., Gorshkov G. B., Zhukov K. M.



3:45 PM
(+5 GMT)

**Evaluation of temperatures and strains discrimination
possibilities in data obtained by the P-BOTDA method**
*F.L. Barkov, Yu.A. Konstantinov, V.V. Burdin, A.I.
Krivosheev*



4:00 PM
(+5 GMT)

**Some features of fiber optic lines monitoring using
operating optical fibers**
Bobrov V.I., Greenstein M.L., Zyuzin M.S.



4:15 PM
(+5 GMT)

On the minimum uncertainty of the attenuation coefficient measurement in a single-mode optical fiber, achievable using Rayleigh reflectometry

M.A. Taranov, B.G. Gorshkov, K.M. Zhukov, M.L. Grinshtein



4:30 PM
(+5 GMT)

Reflectometry method for measuring the length of active optical fibers

Belokrylov M.E., Konstantinov Yu.A., Claude D., Seleznev D.A., Stepin A.A., Konin Yu.A., Shcherbakova V.A., Kashina R.R., Latkin K.P.



Session 2 - Distributed and other fiber optic sensors



Boris G. Gorshkov -

- Invited speaker, Conference Co-Chair

Doctor of Engineering, A.M. Prokhorov Institute of General Physics, Russian Academy of Sciences, Moscow, RUSSIA

Talk topic:

Phase OTDR: signal recovery methods, comparative characteristics, sources of errors, applications



5:00 PM
(+5GMT)

5:30 PM
(+5 GMT)

Coherent Optical Frequency Domain Reflectometer Based on a Fiber Laser with Self-Sweeping Frequency for Sensory Applications

A. Yu. Tkachenko, N.N. Smolyaninov, M.I. Skvortsov, I.A. Lobach, S.I. Kablukov



5:45 PM
(+5 GMT)

Reflectometric measurement of cryogenic temperatures by the method of bosonic components of the Raman scattering registration in an optical fiber

Gorshkov B. G., Gorshkov G. B., Zhukov K. M.



6:00 PM
(+5 GMT)

Achieving an 85-km range of strain & temperature measurements using low coherence Rayleigh reflectometry

M.A. Taranov, B.G. Gorshkov, A.E. Alekseev



6:15 PM
(+5 GMT)

Creation of the database for the Brillouin scattering characteristics in different kinds of single-mode optical fibers

Bogachkov I.V. et al



Posters - 6:30-7:30 PM (+5GMT)

Preliminary Reflectometric Configuration Of The WDM-PON Transport Domain Of The 5G Mobile Network Radio Access

Sakhabutdinov A.Zh., Morozov O.G., Morozov G.A., Nureev I.I., Lustina A.A., Anuchin V.O., Kurbiev I.U., Proskuryakov A.D., Kadushkin V.V., Alyushina S.G.



Improving the accuracy characteristics of a fiber-optic sonar towed streamer for marine geophysical exploration and seismic exploration

Vlasov A.A., Plotnikov M.Yu., Aleinik A.S., Lavrov V.S., Ashirov A.N., Nikitenko A.N., Varlamov A.V., Kikilich N.E., Kiselev S.S.



Phase reflectometer response accuracy

Alekseev A.E., Gorshkov B.G., Potapov V.T., Taranov M.A., Simikin D.E.



Development And Study Of The Model Of A Distributed Calorimetric Fiber Dosimeter Based On The Effect Of Stimulated Brillouin Scattering

Tregubov A.V., Prikhodko V.V., Alekseev A.C., Zhukov A.V.



Methods and instruments of optical reflectometers calibration with picosecond resolution

Kolmogorov O.V., Schipunov A.N., Donchenko S.S., Prokhorov D.V., Deikun A.V., Chemesova E.V.



Improvement Of Metrological Methods For OTDRs

Grigoryev V.V., Mityurev A.K., Naumenko E.A., Pogonyshv A.O., Podyukova L.V., Savkin K.B., Tikhomirov S.V.



Some aspects of modern optical reflectometers metrological support

Grigoryev V.V., Mityurev A.K., Naumenko E.A., Pogonyshv A.O., Podyukova L.V., Savkin K.B., Tikhomirov S.V.



DAY 2, September, 24

Session 2, Part 2 - Distributed and other fiber optic sensors



Zinan Wang

- Program Committee member, Invited Speaker
Full Professor, University of Electronic Science and Technology of China, Chengdu, CHINA



2:00 PM
(+5 GMT)

Talk topic:
Single-shot COTDR for distributed strain sensing



Igor N. Shardakov

- Invited speaker
Professor, Doctor of Physics and Mathematics, Head of the Intelligent Monitoring Laboratory, Institute of Continuous Media Mechanics of Ural Branch of Russian Academy of Sciences (branch of the PFRC UB RAS), Perm, RUSSIA

2:30 PM
(+5 GMT)

Talk topic:
Mechanical aspects of fiber-optic sensors applications

3:00 PM
(+5 GMT)

Creation of fiber tapers by chemical etching for application in fiber sensors and lasers

Kuznetsov P.I., Sudas D.P., Saveliev E.A.



3:15 PM
(+5 GMT)

The method of finding the area of an impact in composite material using fiber optical sensors of acoustic emission

S. D. Bochkova, S. A. Volkovsky M. E., Efimov, I. G. Deineka, D. S. Smirnov, E. V. Litvinov



3:30 PM
(+5 GMT)

Quasi-distributed acoustic sensor system for the media movement monitoring in the hollow tube

Feofilaktov S.V., Sakhabutdinov A.Zh., Morozov O.G., Morozov G.A., Nureev I.I., Kulikov E.V., Kurbiev I.U., Proskuryakov A.D., Kadushkin V.V.



Andrei A. Fotiadi

*- Invited speaker, Program Committee member
Professor, Laboratory Head at Department of Electromagnetism and Telecommunications, Université de Mons, Mons, BELGIUM*



3:45 PM
(+5 GMT)

Talk topic:

Distributed measurements of the vibration spectrum with a coherent reflectometer employing self-injection-locked semiconductor laser as a master oscillator



Vladimir A. Burdin

*- Program Committee member, Conference Co-Chair
Doctor of Engineering, Professor, Department Chair (PSUTI, Samara)*



4:15 PM
(+5 GMT)

Algorithms For Processing Of Backscattering Polarization Characteristics Based On Prony Decomposition

4:30 PM
(+5 GMT)

Research on temperature compensation of ultra-high-resolution FBG static strain sensor in crustal deformation observation

Huang W.Z., Zhang W.T., Li F.



4:45 PM
(+5 GMT)

Field Test Of Broadband Fiber Optic Interferometric Seismometer With Modulation Depth Feedback Control

Zhang W.T., Huang W.Z., Wang Y.B., Zhang J.X., Lv B., Yao Y., Li F.



Macrogroup PHOTONICS LOTTERY! *



5:00 PM
(+5 GMT)

Posters, Part 2 - 5:15-6:30 PM (+5GMT)

Methods of normalizing the response of a phase-sensitive chirp-reflectometer

Yatsev V.A., Butov O.V.



The performance of a coherent reflectometer under conditions of strong local exposure to fiber

D.M. Bengalski, D.R. Kharasov, E.A. Fomiryakov, S.P. Nikitin, O.E. Nanyi, V.N. Treshchikov



Development of an integral-photon interrogator based on a diffraction waveguide grating

Kazakov I.A., Kontorov S.M., Shipulin A.V., Küppers F.



Fiber Optical Sensor For Simultaneous Temperature And Pressure Measurement Using A Fabry-Perot Interferometer And A Fiber Bragg Grating

Fadeev K. M., Larionov D. D., Zhikina L. A., Minkin A. M., Shevtsov D. I.



Bases Of Information Security Of Physical Channels Of Optical Access Networks

Gorlov N.I., Bogachkov I.V.



A Simple Method Of Localizing Events In A Group Of Optical Fibers Reflectograms At One Elementary Cable Part Of A Fiber-Optical Transmission Line

Burdin A.V., Burdin V.A., Delmukhametov O.R., Evtushenko A.S., Zheludkov M.A., Zaitseva E.S.



Investigation of the properties of an all-fiber temperature sensor created using the melting effect

Konin Yu.A., Bulatov M.I., Shcherbakova V.A., Garanin A.I. Tokareva Ya.D., Mosheva E.V.



Response Of The Phase Reflectometer To Homogeneous Influence

Alekseev A.E., Gorshkov B.G., Potapov V.T., Simikin D.E., Taranov M.A.



Evaluation Of The Reflectometric Attenuation Measurements Accuracy Of The Optical Fibers

Frolov I.V.



- Means that the Abstracts in Russian or English were published in OR2020 abstracts book. No Full text have been published.



- Means that the Full Articles in Russian and English were published in Instruments and Scientific Techniques Journal as well as the Abstracts in Russian or English were published in OR2020 abstracts book. The titles in these journal may differ.



- Means that the speaker uses media files for the presentation.



- Means that the speaker uses online presentation.

* MacroGroup invites participants to fill out a questionnaire before 2:00 PM (+5 GMT) on September 24, following the link https://ru.surveymonkey.com/r/conference_mg. On September 24 at 5:00 PM (+5 GMT) Macro Group will play the ASE-source of C-band by Densilight among the participants who have filled out the questionnaire. The draw will be randomized and the winner will be selected live. Using the contacts given by the participants in the questionnaire, MacroGroup will contact the winner to clarify the details of sending the prize.

The general sponsor of our conference is Macro Group company. MacroGroup is a supplier of integrated solutions, equipment and components for photonics, as well as a contract manufacturer and developer of electronics with 26 years of experience. The range of offered products includes both their own developments and equipment from the world-known manufacturers in the field of waveguide optics, laser generation systems, spectroscopy, visualization and photovoltaics.

Get more info at: <http://or-2020.permsc.ru/>
<https://rfl20.iae.nsk.su/en/>
<https://www.macrogroup.ru/en>

The image displays three overlapping browser windows. The top window shows the website for 'OPTICAL REFLECTOMETRY, METROLOGY & SENSING 2020' in Perm, Russia, with planned dates of September 23-24. The middle window shows the '2020 INTERNATIONAL WORKSHOP ON FIBER LASERS' website, featuring a banner for the workshop held in Novosibirsk from September 20-24, 2020. The bottom window shows the 'MACRO GROUP' website, which includes a navigation menu (ABOUT, SERVICES, CATALOGUE, PRODUCERS, NEWS, CONTACTS) and a prominent green banner for 'LIGHTING ENGINEERING' with the text 'COMPLEX SOLUTIONS FOR ENERGY-EFFICIENT LIGHTING SYSTEMS'. The banner also features a collage of logos for various semiconductor and optoelectronic companies such as XILINX, AVAGO, CREE, and others.