About
National Scientific Centre “Institute of Metrology”, Kharkov, Ukraine, for 24th meeting of CCU

Professor Pavel Neyezhmakov
General Director,
CIPM Member,
COOMET Vice-President
The history of National Scientific Centre "Institute of Metrology" began on 8 October, 1901, when at the initiative of an outstanding scientist Dmitry Ivanovich Mendeleyev the first Ukrainian verification chamber was established in Kharkiv with the functions of verification and stamping the trade weights and measures.
Today. National Scientific Centre “Institute of Metrology”

**Promoting the protection of the consumer rights, ensuring the high quality of life**
- Development of measurement methods and instruments necessary for all spheres of human living and household activities
- Health and life protection
- Control of the environment and safety of working conditions
- Protection of consumers during trade operations and transactions
- Reliable measurements in the sphere of public utilities (electricity, gas and water supply)

**International relations**
- Cooperation with other National Metrology Institutes
- Harmonisation of normative documents and elimination of non-tariff barriers in trade
- Participation in international metrological organisations
- Promoting the international unification of metrology

**Increasing the efficiency of economy, innovation, employment security**
- Metrological certification, calibration and verification of measuring instruments
- Metrological review of technical documentation
- Development and certification of measurement techniques
- Development of the national measurement standards, including those harmonised with the international ones
- Certification of calibration laboratories

**Fundamentals of metrology**
- Fundamental and applied scientific research
- Creation of scientific and technical base for metrological system that meets up-to-date requirements
- Scientific and methodological support of metrological activity
- Certification training of metrologists

Prof. Pavel Neyezhmakov
These studies have formed the basis for laser range measurements.
History. Determination of Proton Gyromagnetic Ratio

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Key words: NMR, NMR spectroscopy, density functional theory, chemical shielding.
The National Measurement Standards of Ukraine

NATIONAL MEASUREMENT STANDARDS
NSC “INSTITUTE OF METROLOGY”

53 national measurement standards (NMSs)

Time and frequency (1 NMS)

Mass and related quantities (13 NMSs)

Electricity and Magnetism (9 NMSs)

Measurements of geometrical quantities (4 NMSs)

Photometry and Radiometry (10 NMSs)

Thermometry (6 NMSs)

Ionizing radiation (10 NMSs)
CIPM Mutual Recognition Arrangement

CIPM Mutual Recognition Arrangement (CIPM MRA) was signed on October 14, 1999 by Directors of National Metrology Institutes from 38 states signatories and two international organisations.

Ukraine participates in the Arrangement since 2003
## ANALYSIS OF REALISATION OF CIPM MRA

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Publishing activity of NSC “Institute of Metrology” has many years of publishing experience.

“Ukrainian Metrological Journal“ (UMJ) is a specialized scientific and technical edition, founded by National Scientific Centre “Institute of Metrology” in 1995, first as the “Ukrainskyi Metrolohichnyi Zhurnal” (“Ukrainian Metrological Journal”), and in 2017, in order to expand the geography of publications and readers, an English translation was added to the title.

UMJ web-site address: www.umj.metrology.kharkov.ua

“Ukrainian Metrological Journal” is indexed by an international bibliometric and scientometric database of Google Scholar.

The edition has an identifier for a digital object (DOI: 10.24027 / 2306-7039).

In July 2019 UMJ was included in the leading scientometric, abstract, international citation database in the world Web of Science Core Collection (Web of Science until 2014).
PUBLISHING ACTIVITY

Since 2014, NSC “Institute of Metrology” has been publishing the “Information Bulletin on International Metrology”, which is published twice a year.

Now the 12th edition is being prepared for release.

The Bulletin acquaints readers with the activities of international and regional organizations on metrology and their fundamental documents, as well as with the metrological infrastructure of different countries of the world; informs about international events and new world achievements in the field of metrology.
Under the guidance of COOMET, NSC “Institute of Metrology” performs biennially International Scientific & Technical Conference “METROLOGY AND MEASUREMENT TECHNIQUES”.

The purpose of the conference is to promote the development of metrology and to implement its achievements in researches, practice and study.
Thank you for your attention very much!

Professor Pavel Neyezhmakov