

“Developments Towards Interoperable Metrology”

22nd June 2022 (7:00 – 8:30 UTC)

A session of SciDataCon22 held on-line and coordinated by BIPM and CODATA.

Session Organizers

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Abstract for the session

The International Committee for Weights and Measures (CIPM), whose mission is to promote world-wide uniformity in units of measurement, is working to develop a digital framework for the International System of Units (SI). This initiative will be an important step towards the FAIR principles being adopted by the metrology community.

Whilst the initial focus is on achieving machine-readability of data and services, the final objective is for the data and services to become interoperable. This is a complex challenge that will require collaboration with stakeholders and particularly those developing unit and quantity systems and vocabularies.

The session will include talks about how the BIPM is working on the digital transformation of its databases and services as well as the work being initiated in the Consultative Committees, with examples of the work going on within the Consultative Committee for Time and Frequency and the Consultative Committee for Length.

SciDataCon22 will be held online and face-to-face in Seoul, Republic of Korea from 20-23 June 2022. This webinar is organised by the BIPM with CODATA as part of SciDataCon22. The topics discussed will complement those covered in the **Units Summit Recap Meeting** held on 21st June 2022 at 13:00 UTC.

There is no registration fee for participation in either of these sessions. To register please visit

<https://www.bipm.org/en/bipm-workshops/dig-met>

Agenda

Introduction to the session and presentation of the vision of the CIPM for digital transformation.

Alan Steele (CIPM) 10 mins

An overview of the work of the BIPM to develop new digital services

Martin Milton (BIPM) 15 mins

The “Unique SI Reference Point” – a digital implementation of the SI Brochure

Janet Miles (BIPM) 15 mins

An API for Calibration and Measurement Capabilities to underpin mutual recognition

Susanne Picard and Stéphanie Maniguet (BIPM) 10 mins

Machine-readable data within the context of disseminating the Coordinated Universal Time (UTC)

Frédéric Meynadier (BIPM) 10 mins

Realizing the metre with a digital traceability chain for the recommended optical frequency values

Andrew Lewis (NPL) and Gianna Panfilo (BIPM) 20 mins

Wrap up and discussion

Chaired by Alan Steele and Martin Milton 10 mins