



Physics Colloquium

Tuesday, 12 January 2021 at 17:15

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Linking the International System of Units to Fundamental Constants

In 2018, the General Conference for Weights and Measures, CGPM, established by the Metre Convention in 1875, decided on the revision of the International System of Units (SI). The Metre Convention's signatory states represent ~98 % of the world's economic power making the SI the very foundation of international trade and guaranteeing reliability of measurements worldwide. The revision represents our present theoretical understanding of the microscopic world and is meant to ensure that the units are valid and realisable "for all times and civilizations, throughout the Universe".

In the talk, I give an overview of the revised SI, its advantages as compared to previous definitions, focusing on future perspectives with improved realisation of the units exploiting innovative technologies.

