

**PHYSICAL COLLOQUIUM
INVITATION**

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speaks

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about

**The new definition of the SI unit kilogram:
counting atoms with a spherical interferometer**

At present, the International Prototype of the Kilogram, IPK, a 125 years old small cylinder of platinum-iridium, still defines the SI unit of mass.

For 2018 it is proposed to redefine four of the seven SI units, in fact on the base of fundamental constants, as it is e.g. already done with the length (referred to c , the velocity of light). For the kilogram the *Avogadro experiment* provides an opportunity to link the kilogram to the atomic mass constant m_u by counting atoms in a given amount of mass – here a kilogram of a ^{28}Si single crystal. But how to “count” 10^{25} atoms as the age of the universe is only 10^{17} seconds?

This talk gives the answer...

All interested persons are cordially invited.

Sgd. Prof. Andreas Engel