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171Yb lattice clock at INRIM

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BIPM has recognized the 1S0-3P0 forbidden transition in neutral Ytterbium as a secondary representation of the second.
At INRIM, an optical lattice clock based on neutral 171Yb is under operation and currently the metrological characterization of the standard is ongoing.
The dipole trap at the magic wavelength of 759 nm collects up to 10^4 atoms in about 200 ms, starting from a double stage MOT at 399 nm and 556 nm.
The clock transition 1S0-3P0 at 578 nm is probed by a laser stabilized to an ultra-stable cavity.
The cycle duration sums up to about 250 ms.
We present the first characterization of the clock and the absolute frequency measurements towards the INRIM cryogenic cesium fountain ITCsF2 (accuracy 2×10^-16).
Moreover, we describe the ongoing activities involving the Yb clock, in particular a relativistic geodesy experiment within the European project International Timescale with Optical Clocks.

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