

**Louis Pagot - Impact of  
wavefront aberrations on the  
accuracy of an atomic  
gravimeter**

**Rapport sur les  
contributions**

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## **Impact of wavefront aberrations on the accuracy of an atomic gravimeter**

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The gravimeter developed at LNE-LTE is a matter-wave interferometer of cold atoms. It uses a sequence of three equally spaced two-photon light pulses, during which the phase difference of the lasers is imprinted on the atomic wave packet. One of the main terms of uncertainty in the error budget arises from distortion of the laser phase: wavefront aberrations. This seminar will present a theoretical approach and simulations to the contribution of wavefront aberrations to the measured value of gravity.

**Orateur:** M. PAGOT, Louis (LTE - Equipe IACI)