Light-pulse atom interferometers use short pulses of light to split, deflect, and recombine cold atoms used as a matter-wave source. Since their inception in the 90s, they have proven to be extremely sensitive and accurate gravito-inertial sensors measuring gravity, gravity gradients, and rotations. Atom interferometers appear now as promising candidates to compete with classical sensors used for geodesy, geophysics, or inertial navigation.

Indeed, atom interferometer-based sensors exhibit an inherent long-term stability and accuracy, and do not require calibration as they perform absolute measurements. This holds great prospects to improve the performance of inertial measurement units, which currently rely on classical (non-quantum) technologies providing relative measurements and suffering from a drift.