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Abstract for an Invited Paper
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Laser-cooled Atomic Clocks

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The talk will review the recent advances of atomic clocks using laser-cooled atoms that have lead to accuracies approaching 1 part in 10^{16} . A major impediment has been the frequency shift due to cold collisions. Solutions to the cold collision frequency shift include fountains based on Rubidium atoms and the use of adiabatic fast passage to accurately evaluate the cold collision frequency shift. The current-state-of-the-art and an outlook for future microwave and optical atomic clocks will be given.