

Abstract Submitted
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Loading a Far-Off Resonance Trap from a ^{87}Rb MOT BIN JIAN, WILLIAM VAN WIJNGAARDEN, York University — Loading a far-off resonance trap (FORT) directly from a ^{87}Rb MOT has been demonstrated. The FORT is formed by focusing a high power (20 watts) 1064 nm infrared laser into a beam waist with a diameter of 50 μm . The trap depth is about 1.4 mK that is deep enough to trap the atoms collected by a MOT. The atom number of the MOT is about 5×10^7 with a density about 10^{10} atoms/cm³. The temperature of the MOT atom cloud is 100 \sim 200 μK during the FORT loading phase. Optimizing the FORT loading is on the way.

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