

Abstract Submitted  
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**Atom trapping with a thin magnetic film** MICAH BOYD,  
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KETTERLE, MIT — We have demonstrated trapping of neutral atoms  
using magnetic fields produced by a thin magnetic film. The film was  
magnetized in alternating north/south stripes with a 10  $\mu m$  period. The  
magnetizable surface used was a hard disk platter provided by Hitachi  
Global Storage Technologies. Tube shaped traps were created with an  
additional radial bias field, and the traps were loaded with atoms from  
a  $^{87}\text{Rb}$  BEC. Radial trap frequencies of up to 20 kHz were observed.  
Recent results may include imaging of the individual trap sites as well  
as experiments with the surface as an atomic mirror.

Prefer Oral Session  
 Prefer Poster Session

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