

Abstract Submitted  
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**Magnetic field detection and imaging with atomic Rb vapor** EU-GENIY MIKHAILOV, KEVIN COX, IRINA NOVIKOVA, The College of William and Mary, FRANK NARDUCCI, Naval Air Systems Command, MARK HAVEY, Old Dominion University — We demonstrate dynamic imaging of magnetic fields using electromagnetically induced transparency in hot Rb vapor. The prototype device is demonstrated and discussed. We also investigate the possibility to extend the method to find the direction of magnetic field. As an experimental demonstration we employ an atomic Rb gas confined in a glass cell to image the transverse magnetic field created by a long straight wire.

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