**e/m OF THE ELECTRON**

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PHY 134

SECTION 07

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DATA TAKEN: 11/19/2014

LAB DUE: 11/24/2014 at 10:00AM

LAB HANDED: 11/24/2014

**Aim:**

To calculate the e/m of an electron

**Procedure:**

**1)** Identify the type of apparatus you have.

**2)** Keeping the V constant, observe how the ring changes on changing I

**3)** Keeping the I constant, observe how the ring changes on changing V

**4)** Measure the radius of the coil

**5)** Keeping the I constant, vary the V and measure the diameter of the disk and record the error in radius

**Data Analysis:**

From our calculations, resonance should occur at 112KHz, however based on our measurement it takes place at 90KHz. This could be because of incorrect experimental setup or incorrect inductance.

**Q1) Why do we plot V vs (Ir)² and not V vs (Ir)**

We plot V vs (Ir)² because that gives a linear graph while V vs Ir gives a logarithmic curve.





