Clicker question 1

On the scale of A (easy) to E (difficult): how difficult was the exam?

Clicker question 2

On the scale of A (unfair) to E (fair): how fair was the exam?

## Grading:

Laboratory: 20% Homework: 7.5%

In-class participation, quizzes (I-clicker): 12.5% (quiz: 5 %)

Midterms (two): 30%

Final: 30%

More than 50% of the grade is still undecided

A: Understanding all major concepts

B: Understanding all major concepts, but making some mistakes on tests

C: Did not understand one major concept

D: Not adequate understanding of more than one concept

F: Failure to understand any concepts

Mid-term 2: 11/10

In-class quiz: 10/18, 11/1, 11/17

## Exam grades:

80 or above: great job!

50 or above: doing ok

35 or above: could be doing better

21 to 34: signals signs of trouble (20% of class)

Below 20: you might be in trouble (33% of class)

$$\vec{\mathsf{F}}_{B} = q\vec{\mathsf{v}} \times \vec{\mathsf{B}}$$

Units of magnetic field: Tesla

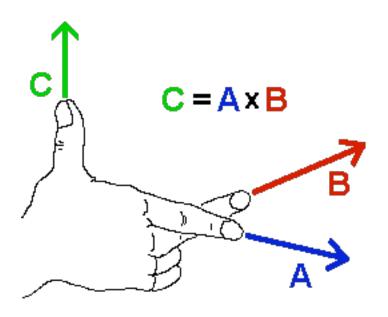
1 T = 10000 Gauss

Surface of earth: 0.5×10<sup>-4</sup> T

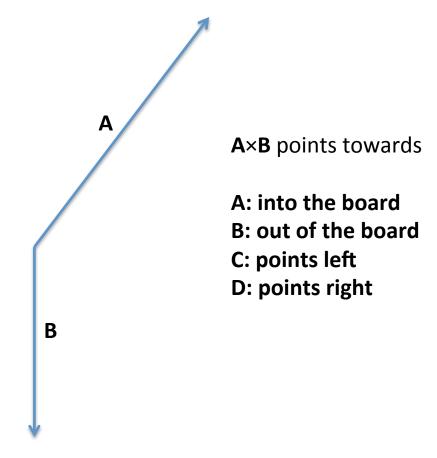
Bar magnet: 1.5 T

Strong superconducting magnet: 30 T

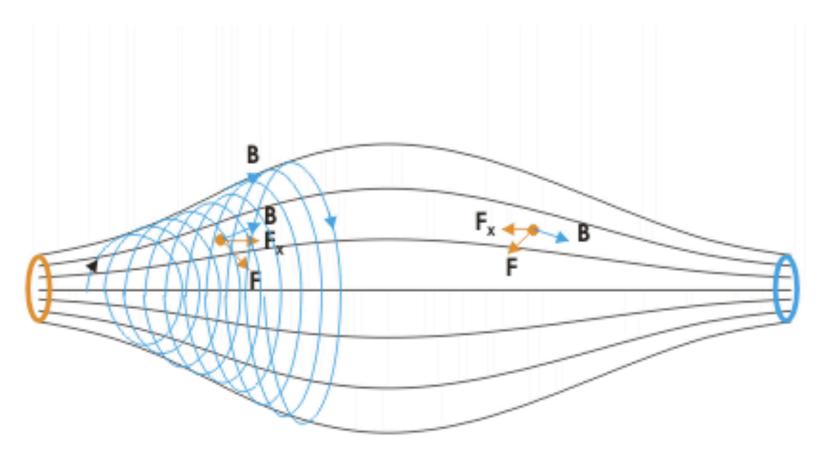
Right hand rule



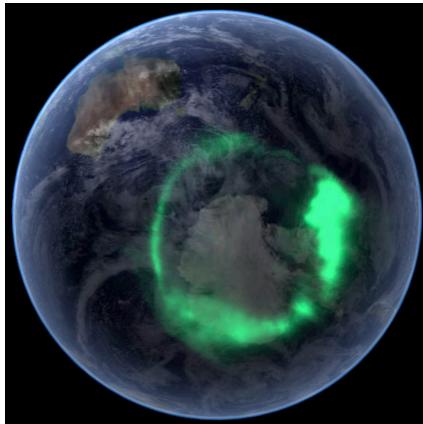
## Clicker question 3



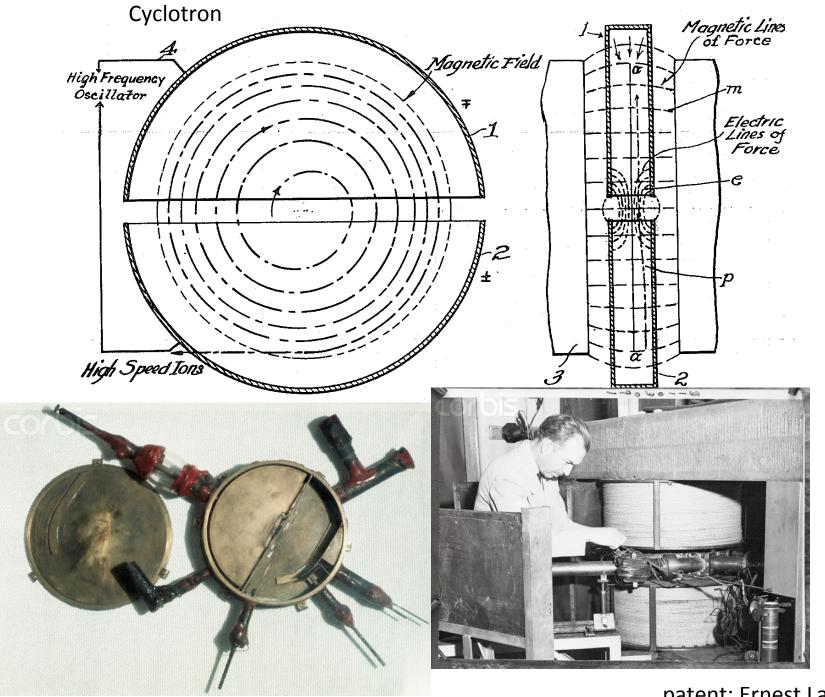
## Magnetic Bottle







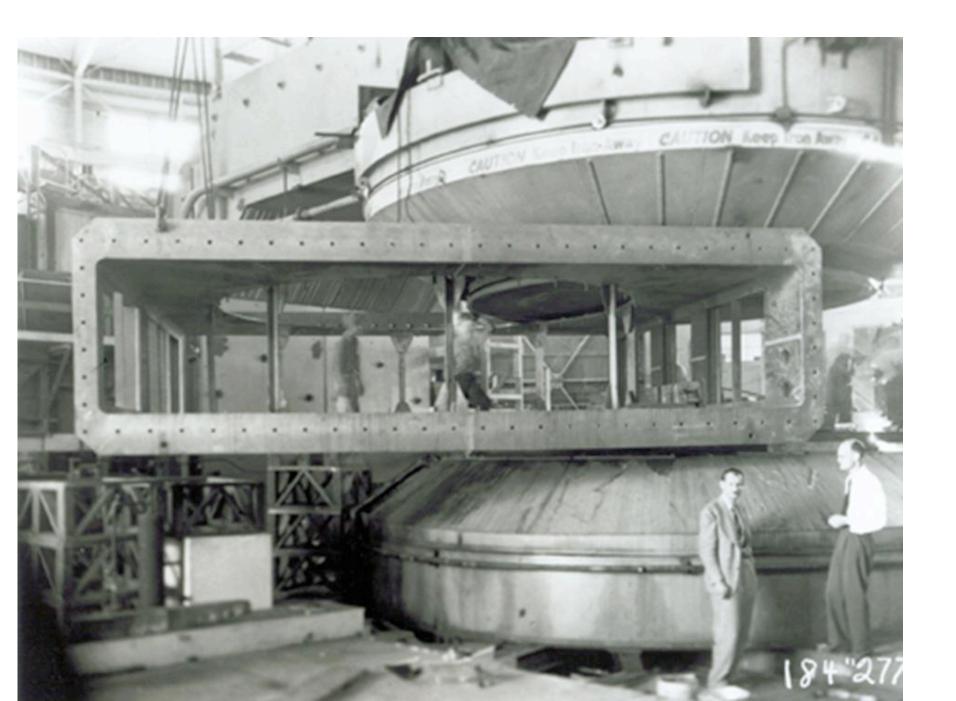


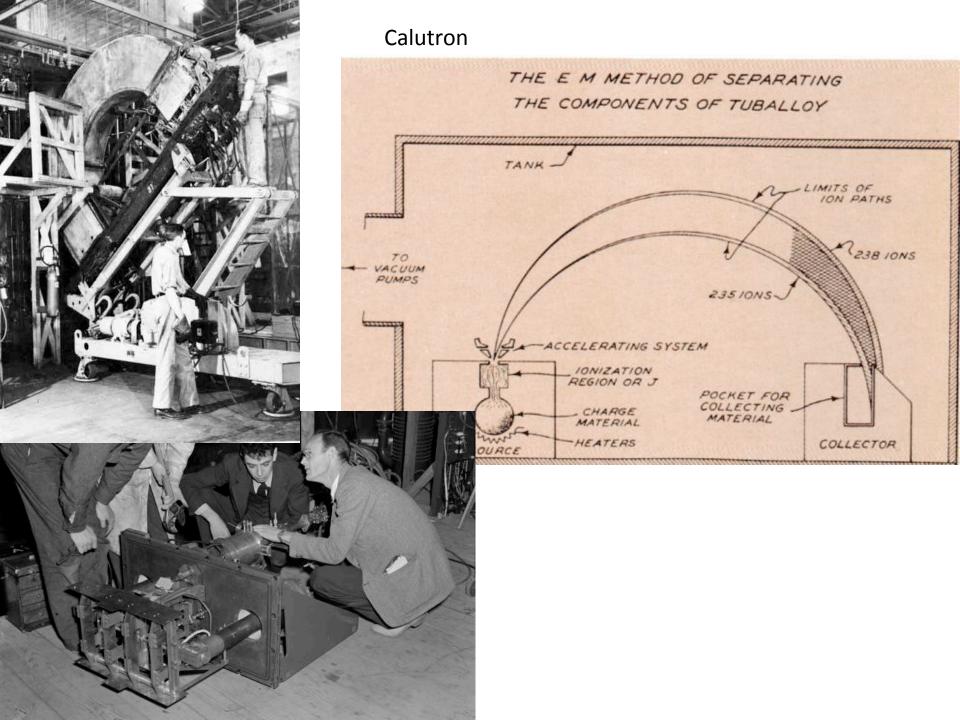


patent: Ernest Lawrence









Medical Cyclotron

Siemens Medical





