

Assignment 2

Special and General Relativity

Readings

Kogut ----- Chapter 3: Visualizing Relativity - Minkowski Diagrams

Ellis/Williams - Chapter 2: Fundamentals of Measurement Chapter 3.1-3.4: Measurements in Flat Spacetime

Problem Assignments

Everyone Problem Assignments(hand in at start of seminar)

- Ellis 2.7 Who fired first?
Ellis 3.10 Twins
Ellis 3.11 Who fired first? A different view.
Kogut 3.1 A Minkowski diagram
Kogut 3.6 Another Minkowski diagram

Individual Problem Assignments

- Ellis 2.3 Radar distance finding
Ellis 2.6 Two volcanoes exploding
Ellis 3.3 K-factors
Ellis 3.4 Away and towards
Ellis 3.5 Relative separation speed = 3c/2?
Ellis 3.8 Relative velocity formula
Ellis 3.12 Twin paradox
Kogut 3.2 Radar trap

Subject Presentations (5 minutes)

- Minkowski(spacetime) diagrams
Doppler effect
Twin paradox
K-calculus