

Black Holes, Problem Set 1 for Monday, Sept. 2

Problem sets are due at the beginning of class, on standard 8½x11 paper, and stapled (this perhaps sounds annoying, but it keeps things from getting out of order or lost, and the hard deadline is part of being fully prepared for the class which benefits everyone).

Problem 1 — Map-Making in Euclidean Space

Do Exercise 1-6 on p. 21.

I have provided concentric circles and tracing paper. DO NOT USE PEN because I don't have a lot more tracing paper to give out. If you make a mistake with a pencil, you can erase.

Problem 2 — Computing Intervals on a Spacetime Map

Do Exercise 1-7 on p. 22.

Problem 3 — Cosmic Ray Muons

Do Problem 1-11 on p. 23.

Problem 4 — Pion showers in a Proton-Aluminum Collision

Do Problem 1-12 on p. 24.