

Supernovae, neutron stars and black holes PHYS 6210 1.0

Assignment

Due: Wednesday, 2 November 2016, 4:00 pm

1. Determine the distance of SN 1968L using the Expanding Photosphere Method. The basis of your computations is the paper by Schmidt et al. (1992). A copy of the paper is provided to you on our course web page. The data are given in Tables 2A and 2B. Use the data for t , B and V from Table 2A and v_{used} from Table 2B from $t=30\text{d}$ to $t=76\text{d}$. Use equations (1), (2) and (9). Assume $R_0=0$ cm and $\zeta=1.0$. List all your parameters in the format given in Table 2B. Compute the mean with standard error of your values for D . Compare your result with that given by Schmidt et al. (1992).