

# Errata: Physics and Evolution of Supernova Remnants by Jacco Vink

Below is a list of errors found by me or reported by others for the book Physics and Evolution of Supernova Remnants. Apart from the list below there are also a number of typos and other errors I am aware of, and that I hope to correct in an updated edition.

I am very grateful to those who have provided feedback on the book, in particular Maarten Roos and Biwen Bao.

If you found errors or have others comments, please send them to me by email (j.vink@uva.nl).

Jacco Vink

## List of errata:

Page		1st edition	Should be
29		Ib	IIb
59	(4.15)	$\dots = v_{\parallel 2} B_{\perp 2} - v_{\perp} B_{\parallel 2}$	$\dots = v_{\parallel 2} B_{\perp 2} - v_{\perp 2} B_{\parallel 2}$
59		(i.e. $B_{1,\perp} = 0$ )	(i.e. $B_{\perp 1} = 0$ )
61	(4.26)	$M_{s2}$ in one case	$M_s^2$
65	below (4.38)	$\tau_{\text{Coulomb}} \propto v^{-3} \propto E^{-2/3}$	$\tau_{\text{Coulomb}} \propto v^3 \propto E^{2/3}$
74	below (4.54)	$B \ 10^{-15} \text{ G}$	$B \ 10^{-12} \text{ G}$
75		... proportional to $(kT)^2$	... proportional to $(kT)^{-2}$
88		corresponding to phase ii	corresponding to phase iii
93		$\text{cm}^{(a+2c-d)}$	$\text{cm}^{(a+2c-3d)}$
94	(5.13)	$V_{\text{fs}} = 1.15 \frac{1}{5} \left(\frac{E}{\rho_0}\right)^{1/5} t^{-3/5}$	$V_{\text{fs}} = \frac{2}{5} \times 1.15 \left(\frac{E}{\rho_0}\right)^{1/5} t^{-3/5}$
124	(6.20)	$\dot{E}_{\text{dot}}(t) = \dots$	$\dot{E}_{\text{rot}}(t) = \dots$
154		Geminga is not PSR B0656+14	PSR J0633+1746
306	(11.50)	first $\eta^{-1/2}$ ...shorter than the age	$\eta^{-1}$ ...shorter than the
340		of the supernova remnant	synchrotron radiative loss time
433	Fig 13.17	y-label has $\text{cm}^{-2}$	$\text{cm}^2$
456	Fig. 13.24	"1 GeV, 1 TeV and 1000 TeV"	"1 GeV, 1 TeV, 10 TeV and 1000 TeV"
439	(13.155)	$\{\alpha_{i,z+1}(T_e)n_{i,z+1}S_{i,z-1}(T_e)n_{i,z-1}\dots\}$ ,	$\{\alpha_{i,z+1}(T_e)n_{i,z+1} + S_{i,z-1}(T_e)n_{i,z-1}\dots\}$ ,
455	below (13.168)	64 MeV	67.5 MeV