

Typos in Shu

Here are some of the typos I have caught so far – this list is just a start on 2nd April 2008.

I will update the file from time to time. If you find a typo not on the list, please let me know.

Chapter 4

p38 first line: $\partial u_i / \partial x_k$

Chapter 8

p104 equation before (8:11): Subscript to derivative on LHS should be P , not s

$$\left(\frac{\partial \rho}{\partial s} \right)_P = \dots$$

Chapter 9

p113 equation (9:1): LHS should not be

$$\rho u \frac{\partial u}{\partial x} = \dots$$

but should be 0.

Chapter 15

p215 equation (15.35): The velocity ratio on the RHS is upside down

$$\frac{\rho_2}{\rho_1} = \frac{u_1}{u_2}$$

Chapter 19

p255 equation (19.7): The subscripts L_1 and L_3 need to be interchanged

$$L_3 \simeq L_1 + \frac{GM\dot{M}}{R}.$$

Chapter 22

p310 after last equation: The second half of the sentence is a gross mis-statement and should read:

“while the (nonpropagating) slow mode is a transverse wave that *neither* compresses the matter *nor* displaces the field.”

p311 equation (22.24): omit the ρ on the RHS

$$\mathbf{B} = B_0 \hat{\mathbf{e}}_z + \beta \mathbf{u},$$

Chapter 25

p341 equation (25.20): there is a missing factor of B_\perp ,

$$\left[(B_\perp u_\parallel - B_\parallel u_\perp) B_\perp \right]_1^2 = 0,$$

but this omission is unimportant since he immediately shows that B_\perp is conserved.

Chapter 26

p347 equation (26.1): RHS has an extra \times symbol. It should be:

$$= -\nabla \times (\eta \nabla \times \mathbf{B}),$$

p349 equation (26.6): LHS is really messed up

Problem set 2

Q 3 part (c) on p 437: “How do the pressure and gravitational forces scale?” is vague – in fact he means “... scale with γ at the sonic transition?”

Problem set 4

4th eq. on this p 453: RHS is missing a minus sign

Trivia

Chapter 19

p257 middle of page – repeated “the”

Chapter 25

p342 equation (25:32): need only 1 plus sign in the numerator