

Corrigendum

Volume 31 Number 2 Pages 181–7

Thermal instability of a partially ionized plasma

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In equation (19), A should be replaced by $A' = A_r - iA_i$ where

$$A_r = 1 + \frac{\alpha_0}{1+s^2} \quad \text{and} \quad A_i = \frac{s\alpha_0}{1+s^2}, \quad \text{with} \quad s = \frac{\sigma_1 \pi^2 \nu}{v_c d^2}.$$

Equation (20) then should read

$$\frac{dR_1}{dT_1} = \frac{(1+x)(1+x+\sigma_1 A_i) + p_1 \sigma_1^2 A_r + i\sigma_1 \{p_1(1+x+\sigma_1 A_i) - (1+x)A_r\}}{x\{(1+x+\sigma_1 A_i)^2 + \sigma_1^2 A_r^2\}} \quad (20)$$

and for $p_1 = (1+x)A_r/(1+x+\sigma_1 A_i)$ the imaginary part of dR_1/dT_1 vanishes to yield the correct condition (21):

$$\frac{dR_1}{dT_1} = \frac{1+x}{x} \frac{1}{1+x+\sigma_1 A_i}. \quad (21)$$

The value of dR_1/dT_1 is still always positive and the previous conclusions are not affected.

