Magnetohydrodynamics of Laboratory and Astrophysical Plasmas
by Hans Goedbloed, Rony Keppens and Stefaan Poedts
(Cambridge University Press, 2019)

Errata, 3 November 2023

– p. 88, Eq. (3.113) 2nd line:
$\equiv \sqrt{Z\mu}\,\omega_{pe} \;\Rightarrow \equiv \sqrt{\mu}\,\omega_{pe}$

– p. 117, Eq. (4.50):
last $-$ sign should be a $+$ sign

– p. 156, Eq. (5.58):
$-\hat{v}_y \neq 0 \;\Rightarrow\; \mp\hat{v}_y \neq 0$

– p. 157, Eq. (5.61):
$(k_\perp b/\omega_{\rm s,f})\,\hat{v}_x \;\Rightarrow\; \pm(k_\perp b/\omega_{\rm s,f})\,\hat{v}_x$

– p. 162, Eq. (5.79):
definition of $\mathbf{t}$ should read: $\mathbf{t} \equiv \big[(\mathbf{b}\times\mathbf{n})\times\mathbf{n}\big]/(b\sin\vartheta)$

– p. 251, Eq. (7.61):
$\omega_{\rm s}^2 \leq \omega_{\rm S}^2 \;\Rightarrow\; \omega_{\rm S}^2 \leq \omega_{\rm s}^2$

– p. 255, Eq. (7.78) 1st row, 2nd column of the matrix should read:
$\dfrac{d}{dx}k_\perp(\gamma p + B^2) + k_\perp \rho g$

– p. 276, Eq. (7.154) 1st line:
insert $=$ sign before the two surface integrals

– p. 276, last term of Eq. (7.154) should read:
$\frac{1}{2}\left[\xi_2\,\dfrac{N}{D}\bigg|_{\omega_1^2}\xi_1' - \xi_1\,\dfrac{N}{D}\bigg|_{\omega_2^2}\xi_2'\right]_{x_1}^{x_2}$

– p. 319, last line:
insert quotation marks about ‘cone’

– p. 332, Eq. (9.32):
last $+$ sign should be a $-$ sign

– p. 333, below Eq. (9.40):

Fig. (7.18) should be Fig. (7.14)

– p. 334, last line:

This not evident $\Rightarrow$ This is not evident

– pp. 392–398:

Remove the full text of Sec. 10.5, two references in Sec. 10.6, and the Excercises [10.6] and [10.7] referring to "Leaky modes". These modes were shown not to correspond to physical reality in the paper "Leaky modes in coronal magnetic flux tubes revisited" by Goedbloed, Keppens and Poedts, *J. Plasma Physics* bf 89 (2023), 9058905; doi:10.1017/S0022377823001058.

– p. 492, 2nd terms of Eqs. (13.60) and 1st term of Eq. (13.61):

insert $|\chi|^2$ in the integrands

– p. 502, 2nd line of Eq. (13.88):

$(\bar{B}_\theta^2 + \rho\bar{v}_\theta^2) \;\Rightarrow\; (\bar{B}_\theta^2 - \rho\bar{v}_\theta^2)$

– p. 509, line above Eq. (13.114):

equation (13.14) $\Rightarrow$ equation (13.80)

– p. 515, Eq. (13.130):

$= (kr)^{-1}\chi' \;\Rightarrow = -(kr)^{-1}\chi'$

– p. 524, Exercise [13.3]:

remove the misleading "Hint" in brackets

– p. 890, Eq. (22.62):

$c_{\rm g}2/c^2 \;\Rightarrow\; c_{\rm g}^2/c^2$

– pp. 941–962:

delete the references [103], [343], [563], [568], [650] referring to "leaky modes"

– p. 968:

delete the items on "leaky modes"

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