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Errata

Field theoretic calculation of energy cascade rates in non-helical magnetohydrodynamic turbulence

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In our paper we committed some typographical errors. We are correcting them here.

1. In eqs (25) and (26), $\langle S^{ub}(k'|p|q)\rangle$ and $\langle S^{bu}(k'|p|q)\rangle$ should be replaced by $-\langle S^{ub}(k'|p|q)\rangle$ and $-\langle S^{bu}(k'|p|q)\rangle$ respectively.
2. In eqs (29) and (30), $\langle S^{ub}(k'|p|q)\rangle$ and $\langle S^{bu}(k'|p|q)\rangle$ should be replaced by $-\langle S^{ub}(k'|p|q)\rangle$ and $-\langle S^{bu}(k'|p|q)\rangle$ respectively.
3. In eqs (45) and (46), the right-hand side should be multiplied by -1.
4. In eq. (64), the factor $\frac{(\Pi^+)^{4/3}}{(\Pi^-)^{2/3}}$ should be replaced by $\frac{(\Pi^+)^{2/3}}{(\Pi^-)^{1/3}}$.
5. In table 2, the entries of $\Pi^{u<}_{b<}/\Pi$ are not quite correct because steady-state assumption made in the paper is incorrect. Please refer to our review [1].

Reference

[1] M K Verma, *Phys. Rep.* (2004) submitted

Energy fluxes in helical magnetohydrodynamics and dynamo action

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(*Pramana – J. Phys.*, Vol. 61, No. 4, pp. 707–724 (2003))

In our paper we committed some errors. We are correcting them here.

1. In eqs (18) and (19), the factors $2H_{\rm K}$ should be replaced by $H_{\rm K}$. The factor of 2 is incorrect.
2. In eqs (15) and (20), the factors $2H_{\rm M}$ should be replaced by $H_{\rm M}$. The factor of 2 is incorrect.

3. Due to the above errors, the entries in tables 1 and 2 are altered. The corrected tables 1 and 2 are given below.

   The flux $\Pi^{u<}_{b<}$ of tables 1 and 2 were computed using steady-state assumption. Current studies [1] show that MHD turbulence is typically not in steady-state, and evolves toward equipartition of kinetic and magnetic energies. Due to this reason, the entries for $\Pi^{u<}_{b<}$ from tables 1 and 2 have been deleted.
4. In eqs (A2) and (A3), $\langle S^{ub}(k'|p|q)\rangle$ and $\langle S^{bu}(k'|p|q)\rangle$ should be replaced by $-\langle S^{ub}(k'|p|q)\rangle$ and $-\langle S^{bu}(k'|p|q)\rangle$ respectively.
5. In p. 715, the constant K^u is to be corrected. It should be ($r_A = 5000$, $r_K = 0.1$, $r_M = -0.1$), $K^u = 1.53$ while for ($r_A = 1$, $r_K = 0.1$, $r_M = -0.1$), $K^u = 0.78$.

Table 1. The values of $I^X_Y = (\Pi^X_Y/\Pi)/(K^u)^{1.5}$ calculated using eqs (47) and (48) for Alfvén ratios $r_A = 1$ and $r_A = 5000$.

	$r_A = 1$	$r_A = 5000$
$I^{u<}_{u>}$	$0.19 - 0.10r_K^2$	$0.53 - 0.28r_K^2$
$I^{u<}_{b>}$	$0.62 + 0.3r_M^2 + 0.095r_Kr_M$	$1.9\times10^{-4} + 1.4\times10^{-9}r_M^2 + 2.1\times10^{-5}r_Kr_M$
$I^{b<}_{u>}$	$0.18 - 2.04r_M^2 + 1.93r_Kr_M$	$-5.6\times10^{-5} - 1.1\times10^{-7}r_M^2 + 5.4\times10^{-4}r_Kr_M$
$I^{b<}_{b>}$	$0.54 - 1.9r_M^2 + 2.02r_Kr_M$	$1.4\times10^{-4} - 1.02\times10^{-7}r_M^2 + 5.4\times10^{-4}r_Kr_M$
I_{H_M}	$-25r_M + 0.35r_K$	$-4.1\times10^{-3}r_M + 8.1\times10^{-5}r_K$
K^u	0.78	1.53

Table 2. The values of energy flux ratios Π^X_Y/Π for various values of r_A, r_K, and r_M for $k^{-5/3}$ region. The first and second entries are non-helical and helical contributions respectively.

(r_A, r_K, r_M)	$\Pi^{u<}_{u>}/\Pi$	$\Pi^{u<}_{b>}/\Pi$	$\Pi^{b<}_{u>}/\Pi$	$\Pi^{b<}_{b>}/\Pi$
(1, 0.1, −0.1)	(0.13, -6.9×10^{-4})	(0.43, -4.4×10^{-4})	(0.13, −0.027)	(0.37, −0.027)
(1, 0.1, 0.1)	(0.12, -6.5×10^{-4})	(0.40, 8.1×10^{-4})	(0.12, -7.7×10^{-4})	(0.35, 8.3×10^{-4})
(1, 1, −1)	(0.029, −0.015)	(0.095, -9.9×10^{-3})	(0.028, −0.61)	(0.083, −0.60)
(1, 1, 1)	(0.12, −0.064)	(0.39, 0.079)	(0.12, −0.075)	(0.34, 0.081)
(1, 0, 1)	(0.081, 0)	(0.26, 0.013)	(0.078, −0.86)	(0.23, −0.8)
(5000, 0.1, −0.1)	(1.0, -5.3×10^{-3})	(3.2×10^{-4}, -3.7×10^{-7})	(-9.7×10^{-5}, -9.0×10^{-6})	(2.5×10^{-4}, -9.4×10^{-4})
(5000, 0.1, 0.1)	(1.0, -5.3×10^{-3})	(3.2×10^{-4}, 3.7×10^{-7})	(-9.7×10^{-5}, 9.0×10^{-6})	(2.5×10^{-4}, 9.4×10^{-6})

Reference

[1] M K Verma, *Phys. Rep.* (2004) submitted