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 $\Pi_{b<}^{u<}/\Pi$ 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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In our paper we committed some errors. We are correcting them here.

1. In eqs (18) and (19), the factors $2H_K$ should be replaced by H_K. The factor of 2 is incorrect.
2. In eqs (15) and (20), the factors $2H_M$ should be replaced by H_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 $\Pi_{b<}^{u\leq}$ 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 $\Pi_{b<}^{u\leq}$ 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 $I_Y^X = (\Pi_Y^X/\Pi)/(K^u)^{1.5}$ calculated using eqs (47) and (48) for Alfvén ratios $r_A = 1$ and $r_A = 5000$.

	$r_A = 1$	$r_A = 5000$
$I_{u>}^{u<}$	$0.19 - 0.10r_K^2$	$0.53 - 0.28r_K^2$
$I_{b>}^{u<}$	$0.62 + 0.3r_M^2 + 0.095r_Kr_M$	$1.9 \times 10^{-4} + 1.4 \times 10^{-9}r_M^2 + 2.1 \times 10^{-5}r_Kr_M$
$I_{u>}^{b<}$	$0.18 - 2.04r_M^2 + 1.93r_Kr_M$	$-5.6 \times 10^{-5} - 1.1 \times 10^{-7}r_M^2 + 5.4 \times 10^{-4}r_Kr_M$
$I_{b>}^{b<}$	$0.54 - 1.9r_M^2 + 2.02r_Kr_M$	$1.4 \times 10^{-4} - 1.02 \times 10^{-7}r_M^2 + 5.4 \times 10^{-4}r_Kr_M$
I_{H_M}	$-25r_M + 0.35r_K$	$-4.1 \times 10^{-3}r_M + 8.1 \times 10^{-5}r_K$
K^u	0.78	1.53

Table 2. The values of energy flux ratios Π_Y^X/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)	$\Pi_{u>}^{u\leq}/\Pi$	$\Pi_{b>}^{u\leq}/\Pi$	$\Pi_{u>}^{b\leq}/\Pi$	$\Pi_{b>}^{b\leq}/\Pi$
$(1, 0.1, -0.1)$	$(0.13, -6.9 \times 10^{-4})$	$(0.43, -4.4 \times 10^{-4})$	$(0.13, -0.027)$	$(0.37, -0.027)$
$(1, 0.1, 0.1)$	$(0.12, -6.5 \times 10^{-4})$	$(0.40, 8.1 \times 10^{-4})$	$(0.12, -7.7 \times 10^{-4})$	$(0.35, 8.3 \times 10^{-4})$
$(1, 1, -1)$	$(0.029, -0.015)$	$(0.095, -9.9 \times 10^{-3})$	$(0.028, -0.61)$	$(0.083, -0.60)$
$(1, 1, 1)$	$(0.12, -0.064)$	$(0.39, 0.079)$	$(0.12, -0.075)$	$(0.34, 0.081)$
$(1, 0, 1)$	$(0.081, 0)$	$(0.26, 0.013)$	$(0.078, -0.86)$	$(0.23, -0.8)$
$(5000, 0.1, -0.1)$	$(1.0, -5.3 \times 10^{-3})$	$(3.2 \times 10^{-4}, -3.7 \times 10^{-7})$	$(-9.7 \times 10^{-5}, -9.0 \times 10^{-6})$	$(2.5 \times 10^{-4}, -9.4 \times 10^{-4})$
$(5000, 0.1, 0.1)$	$(1.0, -5.3 \times 10^{-3})$	$(3.2 \times 10^{-4}, 3.7 \times 10^{-7})$	$(-9.7 \times 10^{-5}, 9.0 \times 10^{-6})$	$(2.5 \times 10^{-4}, 9.4 \times 10^{-6})$

Reference

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