Erratum

Relation of polar auroral arcs to magnetotail twisting and IMF rotation: a systematic MHD simulation study

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Fig. 1. Simulation results after two hours constant IMF. The columns (from left to right) show the magnetosphere for IMF clock angles of 100° , 80° , 45° and 10° and an IMF magnitude of 5.1 nT (runs 1a, 1b, 1c and 1d). The first row contains plots of the northern ionosphere with the open/closed field line boundary (light blue line) overlaid on the upward (blue) and downward (red) field-aligned currents. The plots give a 2D-view on the polar cap in geomagnetic coordinates with noon pointing to the top. The second to last row show tail cross sections at $x = -10$, $x = -30$, $x = -60$ and $x = -120R_E$ (looking downtail in GSM coordinates). In the tail plots the regions of closed (pink dots) and open field lines (light blue dots) are overlaid on plasma pressure isocontour lines (in arbitrary units).

Fig. 2. Simulation results for an MHD run with a fast (2 min) IMF B_y sign change from -5 nT to $+5$ nT after two hours constant IMF and constant positive IMF B_z of $+5$ nT (run 2a). The columns (from left to right) show the state of the magnetosphere -8 , 7 , 22 and 37 min after the center of the IMF B_y sign-change region ($B_y = 0$) has passed the dayside magnetopause (at $x = 10R_E$). The first row shows the northern ionosphere. The second to last row show tail cross sections at $x = P-10$, $x = -30$, $x = -60$ and $x = -90R_E$. The plots are defined in the same way as in Fig. 1.

In the mentioned paper, published in Annales Geophysicae (2004) 22: 951–970, a misarrangement of Figs. 1 and 2 occurred. Please note the corrected version above.