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The following describes a list of errata in our paper, “A simple, analytical model of collisionless magnetic reconnection in a pair plasma.”\textsuperscript{1} It supersedes an earlier erratum\textsuperscript{2}. We recently discovered an error in the derivation of the outflow-to-inflow density ratio. Specifically, eqn. (23) contains an erroneous, additional factor of $n_o^{-1}$. This error leads to three changes to subsequent equations, and to quantitative changes in the figures. We regret this error. The correct version of (23) should read:

\begin{equation}
    d^2 \left( 1 - n_o \frac{u_i}{u_o} - n_o^2 \frac{\gamma - 1}{\gamma} \right) = -\frac{\gamma - 1}{\gamma} p_o \left( \frac{1}{n_o} + n_o \right)
\end{equation}

This result changes two additional equations. Eqn. (24) now becomes:

\begin{equation}
    1 - n_o \frac{u_i}{u_o} - n_o^2 \frac{\gamma - 1}{\gamma} = -\frac{\gamma - 1}{2\gamma} \left( 1 + n_o^2 \right)
\end{equation}

which now leads to a quadratic rather than cubic equation for $n_o$.

\begin{equation}
    n_o^2 + \frac{2\gamma}{\gamma - 1} n_o - 1 - \frac{2\gamma}{\gamma - 1} = 0
\end{equation}
This equation is readily solved analytically:

\[ n_o = -\frac{\gamma}{\gamma - 1} e + \left[ \frac{\gamma}{\gamma - 1} e \right]^2 + 1 + \frac{2\gamma}{\gamma - 1} \right]^{1/2} \tag{26b} \]

The subsequent analysis is unchanged. The revision of (26) leads to qualitatively very similar results, and all original conclusions remain valid. The revised figures are shown below.

**REFERENCES**


Figures and captions

Figure 1 (color online). Reconnection electric field depending on inflow plasma $\beta$ and polytropic index $\gamma$.

Figure 2 (color online). Ratio of outflow and inflow density, depending on inflow plasma $\beta$ and polytropic index $\gamma$. 
Figure 3 (color online). Entropy ratio $\frac{p_n\gamma}{p_i\gamma}$ depending on inflow plasma $\beta$ and polytropic index $\gamma$.

Figure 4 (color online). Diffusion region thickness $d$ depending on inflow plasma $\beta$ and polytropic index $\gamma$. 
Figure 5 (color online). Diffusion region aspect ratio $d/L$ depending on inflow plasma $\beta$ and polytropic index $\gamma$.

Figure 6 (color online). Outflow velocity depending on inflow plasma $\beta$ and polytropic index $\gamma$.

Figure 7 (color online). Outflow velocity based on outflow density depending on inflow plasma $\beta$ and polytropic index $\gamma$. 
Figure 8 (color online). Inflow energy flux densities for upstream $\beta=0.3$.

Figure 9 (color online). Outflow energy flux densities for upstream $\beta=0.3$.
Figure 10 (color online). Outflow kinetic energy flux density plotted versus enthalpy flux density for all parameters. The lower fluxes are obtained for larger values of the polytropic index $\gamma$, with the exception of the $\beta=1$ calculation. Here, lower values of $\gamma$ yield larger kinetic energy but lower enthalpy flux densities.

![Graph showing outflow kinetic energy flux density versus enthalpy flux density](image)

Figure 11 (color online). Outflow Poynting flux density plotted versus enthalpy flux density for all parameters. Here higher Poynting fluxes are obtained for smaller values of the polytropic index $\gamma$, again with the exception of the $\beta=1$ calculation. Here, lower values of $\gamma$ yield larger kinetic energy but lower enthalpy flux densities.

![Graph showing outflow Poynting flux density versus enthalpy flux density](image)