Erratum: "Numerical study of Alfvén eigenmodes in the Experimental Advanced Superconducting Tokamak" [Phys. Plasmas 21, 052510 (2014)]

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After Eq. (15) in Ref. [1], the definition of the normalized pressure gradient α is given by

$$\alpha = -R_0 q^2 \frac{1}{B_0^2/8\pi} \frac{dp}{dr}, \tag{1}$$

which is the definition of α in the Gauss unit system. However SI units were used in this article, thus Eq. (1) is wrong in this context. The correct definition is given by the following form

$$\alpha = -R_0 q^2 \frac{1}{B_0^2/2\mu_0} \frac{dp}{dr}. \tag{2}$$

The numerical values of α presented in the article are correct because when calculating α, I identified $p/(B_0^2/8\pi)$ as the normalized pressure $\overline{p}$, and $\overline{p}$ was calculated using the correct formula $\overline{p} = p/(B_0^2/2\mu_0)$.

In the paper, the configuration of EAST discharge #38300 at 3.9s was said to be a double-null configuration. After the publication of the paper, I checked the Webscope data and found the configuration is actually a single-null configuration because dRsep ≈ -1.2cm, where dRsep is defined as the radial distance at the low-field-side midplane between the flux surfaces connected to the lower and upper X-points, i.e., dRsep $= R_{\text{low}} - R_{\text{upper}}$. For EAST device, configuration with $|\text{dRsep}| < 1$cm is considered to be a double-null configuration, otherwise it is a single-null configuration.

Bibliography

[1] Youjun Hu, Guoqiang Li, N. N. Gorelenkov, Huishan Cai, Wenjun Yang, Deng Zhou, and Qilong Ren. Numerical study of alfvén eigenmodes in the experimental advanced superconducting tokamak. *Physics of Plasmas (1994-present)*, 21(5):052510, 2014.