

## Corrigendum to: A convergent adaptive finite element method for elliptic Dirichlet boundary control problems

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In this corrigendum we would like to clarify some incorrect statements in our paper [Gong et al.](#) In the 16th line below equation (1.6) we said “In Chowdhury et al. (2017) the authors attempted to derive an *a posteriori* error estimate under formulation (1.1); however, the proof contains some flaws”. Herewith we clarify that the above statement is incorrect. In the proof of Lemma 5.1 in [Chowdhury et al. \(2017\)](#), although there is a gap in the derivation, it can be closed with an elaborate analysis and this yields a correct and rigorous proof. Also, the statement in Remark 3.2 of [Gong et al.](#) is incorrect. Although the auxiliary problem (5.3) introduced in [Chowdhury et al. \(2017\)](#) does not admit a unique solution, the solution is unique up to a constant, and this does not cause any problems for the *a posteriori* error estimates. In summary, the proofs of Lemma 5.1 and Theorem 5.2 in [Chowdhury et al. \(2017\)](#) are correct and our results provide an alternative proof. We would like to apologize sincerely to the authors S. Chowdhury, T. Gudi and A.K. Nandakumaran for our incorrect statements, and thank especially T. Gudi for providing a detailed proof. We would also like to thank Prof. Endre Süli, Editor-in-Chief of IMA Journal of Numerical Analysis, for the communications and for providing great help.

### REFERENCE

- CHOWDHURY, S., GUDI, T., & NANDAKUMARAN, A. K. (2017) Error bounds for a Dirichlet boundary control problem based on energy spaces. *Math. Comput.*, **86**, 1103–1126.  
GONG, W., LIU, W., TAN, Z., & YAN, N. A convergent adaptive finite element method for elliptic Dirichlet boundary control problems. *IMA J. Numer. Anal.* <https://doi.org/10.1093/imanum/dry051>.