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**ERRATA TO “SYMMETRIC HYPERBOLIC SYSTEMS
WITH BOUNDARY CONDITIONS THAT DO NOT SATISFY
THE KREISS–SAKAMOTO CONDITION”**

(APPL. MATH. (WARSAW) 35 (2008), 323–333)

The following correction has to be made to my article [Ell08]. Even though the main results (Theorems 1.1 & 1.2) are correct, their proof is not. The proof given in Section 2 of [Ell08] works only if the coefficient matrices E, A^1, \dots, A^n are constant and in the case that $\Omega = \{x \in \mathbb{R}^n : x_n > 0\}$ is the half-space.

We like to give a brief explanation of the error in the proof. The expression

$$Lv = [q, E]\partial_t v + \gamma[q, E]v + [q, A]\partial_\nu v + [q, A_\tau(\partial)]v$$

is introduced on the bottom of page 330 in [Ell08]. The following estimate

$$\|Lv\|_Q \lesssim \sqrt{\gamma}\|v\|_Q$$

can be inferred only if E and A have constant coefficients. The problem is that the symbol of the operator q is not of class C^1S^0 with respect to all variables. Hence the commutator estimates for operators with C^1 coefficients [Tay91, Chapter 4] cannot be applied.

A correct proof of the a priori estimates given in Theorems 1.1 and 1.2 in the case of C^1 coefficients is actually much more involved. A complete proof will be given in the forthcoming paper [Ell10].

References

- [Ell08] M. Eller, *Symmetric hyperbolic systems with boundary conditions that do not satisfy the Kreiss–Sakamoto condition*, Appl. Math. (Warsaw) 35 (2008), 323–333.
- [Ell10] —, *On symmetric hyperbolic boundary problems with nonhomogeneous conservative boundary conditions*, in preparation, 2010.

- [Tay91] M. E. Taylor, *Pseudodifferential Operators and Nonlinear PDE*, Progr. Math. 100, Birkhäuser Boston, Boston, MA, 1991.

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