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Correction to: Mixed Problem for Weakly Hyperbolic Equations of Second Order with Degenerate First Order Boundary Condition

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The paper with the above title contains falsities. The falsities occur in formulas (3.18) and (3.19). We must change the choice of z_1 and z_2 in pp. 76 because we can not use formulas (3.18) and (3.19). For the correction, we have been able to choose z_1 and z_2 as $z_1=1$ and $z_2=(\tilde{c}(t, y')-1)/(\tilde{c}(t, y')+1)$ where $\tilde{c}(t, y')$ is the same function as the one in (3.12). In the paper with above title, z_1 and z_2 were pseudo differential operators with respect to $y'=(y_2, \cdots, y_n)$ with parameters (t, σ). By the new choice of z_1 and z_2, we have a simple systematization which reduce the mixed problem (3.9) to the mixed problem for the symmetric hyperbolic pseudo differential system of first order with positive boundary condition. Also, we can easily obtain (3.42) and (3.57) for the corrected system by the same method as the one in the paper with the above title.

The new systematization for (3.9) is as follows:

By Lemma 3.3, we have

$$
(1)\qquad \begin{cases} \inf\limits_{(t,y')\in[0,T]\times R^{n-1}} \tilde{c}_1(t, y')>0 \\ \inf\limits_{(t,y',\eta')\in[0,T]\times R^{n-1}\times R^{n-1}} [\tilde{c}_1(t, y')^2-\{\tilde{b}_{11}(t, y', \eta')^2 \\ \qquad\qquad +(\tilde{c}_1(t, y')\tilde{b}_{12}(t, y', \eta')-\tilde{c}_2(t, y')\tilde{b}_{11}(t, y', \eta'))^2\}]>0 \end{cases}
$$

where $\tilde{b}_{11}$, $\tilde{b}_{12}$, $\tilde{c}_1$ and $\tilde{c}_2$ are real valued functions, $\tilde{\alpha}_j(t, y')$, $\tilde{\beta}(t, y')$ and $d(\eta')$ are the same ones in (3.12), $\eta'=(\eta_2, \cdots, \eta_n)$ and

$$
(2)\qquad \begin{cases} \tilde{c}(t, y')=\tilde{\beta}(t, y')=\tilde{c}_1(t, y)+i\tilde{c}_2(t, y') \\ \sum\limits_{j=2}^{n} \tilde{\alpha}_j(t, y')\eta_j/d_1(\eta')=\tilde{b}_{11}(t, y', \eta')+i\tilde{b}_{12}(t, y', \eta') \\ d_1(\eta')=(d(\eta')^2+1)^{1/2}\,. \end{cases}
$$

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