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**Kupên, B.** **[Gu, Ben]** (PRC-FUDAN-IM)

**Reflection of singularities at boundary for piecewise smooth solutions to semilinear hyperbolic systems.**

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The author considers an initial-boundary value problem for a $2 \times 2$ semilinear symmetric strictly hyperbolic system in a smooth (bounded) domain of $\mathbf{R}^n$ and proves, using classical methods involving transformations and estimates of jump discontinuities, a result on reflection of singularities for piecewise smooth solutions corresponding to piecewise smooth initial values. More precisely: if for $t \leq 0$ the singularities of the solution propagate along a characteristic hypersurface $S_1$, which reflects at the boundary into another characteristic hypersurface $S_2$, then for small $t \geq 0$ the solution will remain piecewise smooth, and its singularities (whose order is proved to be preserved) will propagate along $S_1 \cup S_2$.

**Reviewed** by *Albert J. Milani*