

cases	doc_1		doc_2			decision	id
			authors	<ul style="list-style-type: none"><li>Toan Nguyen</li><li>Kevin Zumbrun</li></ul>		DUPLICATES	1096
	authors	<ul style="list-style-type: none"><li>Toan T. Nguyen</li><li>Kevin Zumbrun</li></ul>	title	Long-time stability of large-amplitude noncharacteristic boundary layers for hyperbolic--parabolic systems			
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	urls	<ul style="list-style-type: none"><li>https://openalex.org/W2592724537</li><li>https://doi.org/10.1016/j.matpur.2009.10.001</li><li>https://doi.org/10.1016/j.matpur.2009.10.001</li></ul>	urls	<ul style="list-style-type: none"><li>http://arxiv.org/pdf/0804.1345v1</li><li>http://arxiv.org/abs/0804.1345v1</li><li>http://arxiv.org/pdf/0804.1345v1</li></ul>			
	id	id-5895629176161141281	id	id-4978591361952966792			
	abstract		abstract	Extending investigations of Yarahmadian and Zumbrun in the strictly parabolic case, we study time-asymptotic stability of arbitrary (possibly large) amplitude noncharacteristic boundary layers of a class of hyperbolic-parabolic systems including the Navier--Stokes equations of compressible gas- and magnetohydrodynamics, establishing that linear and nonlinear stability are both equivalent to an Evans function, or generalized spectral stability, condition. The latter is readily checkable numerically, and analytically verifiable in certain favorable cases; in particular, it has been shown by Costanzino, Humpherys, Nguyen, and Zumbrun to hold for sufficiently large-amplitude layers for isentropic ideal gas dynamics, with general adiabatic index $\gamma \geq 1$ . Together with these previous results, our results thus give nonlinear stability of large-amplitude isentropic boundary layers, the first such result for compressive ("shock-type") layers in other than the nearly-constant case. The analysis, as in the strictly parabolic case, proceeds by derivation of detailed pointwise Green function bounds, with substantial new technical difficulties associated with the more singular, hyperbolic behavior in the high-frequency/short time regime.			
	versions		versions				