	doc_1		doc_2		decision	id
	authors	Anthony Suen				
	title	Global regularity for the 3D compressible magnetohydrodynamics with general pressure	authors	Anthony Suen		
pu	publication_date   2020-12-05 08:10:41+00:00					
	source	SupportedSources.ARXIV		Global Solutions of the Equations of 3D Compressible Magnetohydrodynamics with Zero Resistivity	NOT 1224	
	journal	None	<del></del>	2020-11-13 00:00:00		
	volume		source	SupportedSources.INTERNET_ARCHIVE		
	doi		journal			
cases	urls	<ul> <li>http://arxiv.org/pdf/2012.02971v1</li> <li>http://arxiv.org/abs/2012.02971v1</li> <li>http://arxiv.org/pdf/2012.02971v1</li> </ul>	doi urls	• https://web.archive.org/web/20201117004631/https://arxiv.org/pdf/1202.4081v5.pdf		1224
	id	id8287110840224045939	id	id1091475489930009947		
	abstract	We address the compressible magnetohydrodynamics (MHD) equations in \$\mathbb{R}^3\$ and establish a blow-up criterion for the local strong solutions in terms of the density only. Namely, if the density is away from vacuum (\$\rho=0\$) and the concentration of mass (\$\rho=\infty\$), then a local strong solution can be continued globally in time. The results generalise and strengthen the previous ones in the sense that there is no magnetic field present in the criterion and the assumption on the pressure is significantly relaxed. The proof is based on some new a priori	abstract ta	We prove the global-in-time existence of H <sup>2</sup> solutions of the equations of compressible magnetohydrodynamics with zero magnetic resistivity in three space dimensions. Initial data are taken to be small in H <sup>2</sup> modulo a constant state and initial densities are positive and essentially bounded. The present work generalizes the results obtained by Kawashima.		
			versions			
	versions	estimates for three-dimensional compressible MHD equations.				