cases	doc_1			doc_2		decision	id
		authors	• D. Chae	**authors**	• Dongho Chae		
		title	Nonexistence of Self-similar Singularities in the Ideal Magnetohydrodynamics	**title**	Nonexistence of self-similar singularities in the ideal magnetohydrodynamics		
		publication_date	2007-03-12 00:00:00	**publication_date**	2007-03-12 02:05:51+00:00		
		source	SupportedSources.SEMANTIC_SCHOLAR	**source**	SupportedSources.ARXIV		
		journal	Archive for Rational Mechanics and Analysis	**journal**	None		
		volume	194	**volume**			
		doi	10.1007/S00205-008-0182-9	**doi**			
		urls	• https://www.semanticscholar.org/paper/9ace15aff0c895b76e84a1877d33f5746f511a85	**urls**	• http://arxiv.org/pdf/math/0703317v3 • http://arxiv.org/abs/math/0703317v3 • http://arxiv.org/pdf/math/0703317v3	DUPLICATES	1105
		id	id7016446781710647116	**id**	id2277394725180752857		
		abstract	None	**abstract**	In this paper we exclude the scenario of apparition of finite time singularity in the form of self-similar singularities in the ideal magnetohydrodynamic equations, assuming suitable integrability conditions on the vorticity and the magnetic field. We also consider more sophisticated possibility of asymptotically self-similar singularities, which means that the local classical solution converges to the self-similar profile as we approaches to the possible time of singularity. The scenario of asymptotically self-similar singularity is also excluded under suitable conditions on the profile. In the 2D magnetohydrodynamics the magnetic field evolution equations reduce to a divergence free transport equation for a scalar stream function. This helps us to improve the above nonexistence theorems on the self-similar singularities, in the sense that we only need weaker integrability conditions on the profile to prove the results.		
		versions		**versions**			