

cases	doc_1		doc_2		decision	id
	authors	<ul style="list-style-type: none">Xumin Gu	authors	<ul style="list-style-type: none">Xumin Gu	NOT DUPLICATES	1233
	title	Well-posedness of axially symmetric incompressible ideal magnetohydrodynamic equations with vacuum under the Rayleigh-Taylor sign condition	title	Well-posedness of axially symmetric incompressible ideal magnetohydrodynamic equations with vacuum under the non-collinearity condition		
	publication_date	2017-12-06 00:00:00	publication_date	2017-11-23 00:00:00		
	source	SupportedSources.INTERNET_ARCHIVE	source	SupportedSources.INTERNET_ARCHIVE		
	journal		journal			
	volume		volume			
	doi		doi			
	urls	<ul style="list-style-type: none">https://web.archive.org/web/20200908033439/https://arxiv.org/pdf/1712.02152v1.pdf	urls	<ul style="list-style-type: none">https://web.archive.org/web/20191017135143/https://arxiv.org/pdf/1711.09757v1.pdf		
	id	id-9113432169461577660	id	id-6052351515676971318		
	abstract	We consider a free boundary problem for the axially symmetric incompressible ideal magnetohydrodynamic equations that describes the motion of the plasma in vacuum. Both the plasma magnetic field and vacuum magnetic field are tangent along the plasma-vacuum interface. Moreover, the vacuum magnetic field is composed in a non-simply connected domain and hence is non-trivial. Under the Rayleigh-Taylor sign condition on the free surface, we prove the local well-posedness of the problem in Sobolev spaces. Furthermore, we also prove the local well-posdeness under a more general "stability" assumption for the initial data, which provided that the Rayleigh-Taylor sign condition is satisfied at all those points of the initial interface where the non-collinearity condition fails.	abstract	We consider a free boundary problem for the axially symmetric incompressible ideal magnetohydrodynamic equations that describes the motion of the plasma in vacuum. Both the plasma magnetic field and vacuum magnetic field are tangent along the plasma-vacuum interface. Moreover, the vacuum magnetic field is composed in a non-simply connected domain and hence is non-trivial. Under the non-collinearity condition on the free surface, we prove the local well-posedness of the problem in Sobolev spaces.		
	versions		versions			