cases

doc_1		doc_2		decision	id
authors	• Xumin Gu			NOT DUPLICATES	1240
title	Well-posedness of axially symmetric incompressible ideal magnetohydrodynamic equations with vacuum under the Rayleigh-Taylor sign condition	**authors**	• Xumin Gu		
publication_date	2017-12-06 12:14:33+00:00	**title**	Well-posedness of axially symmetric incompressible ideal magnetohydrodynamic equations with vacuum under the non-collinearity condition		
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journal	None	**source**	SupportedSources.SEMANTIC_SCHOLAR		
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urls	• http://arxiv.org/pdf/1712.02152v1 • http://arxiv.org/abs/1712.02152v1 • http://arxiv.org/pdf/1712.02152v1	**doi**	10.3934/CPAA.2019029		
		urls	• https://www.semanticscholar.org/paper/c2460ccd67f1f82e9f44ce419d41de29bef314b6		
id	id-7065163989295393136	**id**	id-475301048772190966		
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**			