cases	doc_1	doc_2	decision	id
			DUPLICATES	1001

doc_1	
authors	• Chengchun Hao • T. Luo
title	Well-posedness for the Linearized Free Boundary Problem of Incompressible Ideal Magnetohydrodynamics Equations.
publication_date	2019-11-27 00:00:00
source	SupportedSources.SEMANTIC_SCHOLAR
journal	arXiv: Analysis of PDEs
volume	
doi	10.1016/j.jde.2021.07.030
urls	• https://www.semanticscholar.org/paper/0ccdb012c0a3a842d9bd18affd3fee0f388afc71
id	id52371701817847952 85
abstract	None
versions	

doc_2	
authors	• Chengchun Hao • Tao Luo
title	Well-posedness for the Linearized Free Boundary Problem of Incompressible Ideal Magnetohydrodynamics Equations
publication_date	2019-12-16 00:00:00
source	SupportedSources.INTERNET_ARCHIVE
journal	
volume	
doi	
urls	• https://web.archive.org/web/20200827172520/https://arxiv.org/pdf/1912.05908v2.pdf
id	id7843399000927361114
abstract	We study the well-posedness theory for the linearized free boundary problem of incompressible ideal magnetohydrodynamics equations in a bounded domain. We express the magnetic field in terms of the velocity field and the deformation tensors in the Lagrangian coordinates, and substitute the magnetic field into the momentum equation to get an equation of the velocity in which the initial magnetic field serves only as a parameter. Then, we linearize this equation with respect to the position vector field whose time derivative is the velocity, and obtain the local-in-time well-posedness of the solution by using energy estimates of the tangential derivatives and the curl with the help of Lie derivatives and the smooth-out approximation.
versions	