	doc_1	doc_2	decision	id
cases			DUPLICATES	977

doc_1	
authors	
title	Iharm3D: Vectorized General Relativistic Magnetohydrodynamics
publication_date	2021-10-19 00:00:00
source	SupportedSources.PAPERS_WITH_CODE
journal	
volume	
doi	
urls	• https://arxiv.org/pdf/2110.10191v1.pdf • https://github.com/afd-illinois/iharm3d
id	id5360835151102714628
abstract	Iharm3D is an open-source C code for simulating black hole accretion systems in arbitrary stationary spacetimes using ideal general-relativistic magnetohydrodynamics (GRMHD). It is an implementation of the HARM ("High Accuracy Relativistic Magnetohydrodynamics") algorithm outlined in Gammie et al. (2003) with updates as outlined in McKinney & Gammie (2004) and Noble et al. (2006). The code is most directly derived from Ryan et al. (2015) but with radiative transfer portions removed. HARM is a conservative finite-volume scheme for solving the equations of ideal GRMHD, a hyperbolic system of partial differential equations, on a logically Cartesian mesh in arbitrary coordinates.
versions	

doc_2	
authors	• B. Prather • G. Wong • Vedant Dhruv • B. Ryan • J. Dolence • S. Ressler • C. Gammie
title	iharm3D: Vectorized General Relativistic Magnetohydrodynamics
publication_date	2021-10-14 00:00:00
source	SupportedSources.SEMANTIC_SCHOLAR
journal	J. Open Source Softw.
volume	6
doi	10.21105/joss.03336
urls	• https://www.semanticscholar.org/paper/06dc40951b9392d9a266e4f0f2de0d3267d2f717
id	id985806835712986271
abstract	Iharm3D is an open-source C code for simulating black hole accretion systems in arbitrary stationary spacetimes using ideal general-relativistic magnetohydrodynamics (GRMHD). It is an implementation of the HARM ("High Accuracy Relativistic Magnetohydrodynamics") algorithm outlined in Gammie et al. (2003) with updates as outlined in McKinney&Gammie (2004) and Noble et al. (2006). The code is most directly derived from Ryan et al. (2015) but with radiative transfer portions removed. HARM is a conservative finite-volume scheme for solving the equations of ideal GRMHD, a hyperbolic system of partial differential equations, on a logically Cartesian mesh in arbitrary coordinates.
versions	