cases	doc_1	doc_2	decision	id
			DUPLICATES	1072

doc_1	
authors	• Olindo Zanotti • Michael Dumbser • Arturo Hidalgo • Dinshaw S. Balsara
title	An ADER-WENO Finite Volume AMR code for Astrophysics
publication_date	2014-01-24 00:00:00
source	SupportedSources.OPENALEX
journal	8th International Conference of Numerical Modeling of Space Plasma Flows (ASTRONUM 2013)
volume	488
doi	None
urls	• https://openalex.org/W2963139272
id	id-8587170392853109231
abstract	
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doc_2	
authors	• O. Zanotti • M. Dumbser • A. Hidalgo • D. Balsara
title	An ADER-WENO Finite Volume AMR code for Astrophysics
publication_date	2014-01-24 00:00:00
source	SupportedSources.SEMANTIC_SCHOLAR
journal	arXiv: Instrumentation and Methods for Astrophysics
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doi	
urls	• https://www.semanticscholar.org/paper/1a82e8a146daf1859243697d2bd454b7f800dde6
id	id-976187453671677469
abstract	A high order one-step ADER-WENO finite volume scheme with Adaptive Mesh Refinement (AMR) in multiple space dimensions is presented. A high order one-step time discretization is achieved using a local space-time discontinuous Galerkin predictor method, while a high order spatial accuracy is obtained through a WENO reconstruction. Thanks to the one-step nature of the underlying scheme, the resulting algorithm can be efficiently imported within an AMR framework on space-time adaptive meshes. We provide convincing evidence that the presented high order AMR scheme behaves better than traditional second order AMR methods. Tests are shown of the new scheme for nonlinear systems of hyperbolic conservation laws, including the classical Euler equations and the equations of ideal magnetohydrodynamics. The proposed scheme is likely to become a useful tool in several astrophysical scenarios.
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