cases	doc_1		doc_2		decision	id
	authors	• Bard, C. • Dorelli, J.	**authors**	• Bard, Christopher • Dorelli, John C.	DUPLICATES	28
	title	A simple GPU-accelerated two-dimensional MUSCL-Hancock solver for ideal magnetohydrodynamics	**title**	A Simple GPU-Accelerated Two-Dimensional MUSCL-Hancock Solver for Ideal Magnetohydrodynamics		
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	urls	• https://api.elsevier.com/content/article/PII:S002199911300805X?httpAccept=text/xml • https://api.elsevier.com/content/article/PII:S002199911300805X?httpAccept=text/plain • http://dx.doi.org/10.1016/j.jcp.2013.12.006	**urls**	• https://core.ac.uk/download/pdf/42721284.pdf		
	id	id7675271506114281712	**id**	id5310570679873952741		
	abstract		**abstract**	We describe our experience using NVIDIA's CUDA (Compute Unified Device Architecture) C programming environment to implement a two-dimensional second-order MUSCL-Hancock ideal magnetohydrodynamics (MHD) solver on a GTX 480 Graphics Processing Unit (GPU). Taking a simple approach in which the MHD variables are stored exclusively in the global memory of the GTX 480 and accessed in a cache-friendly manner (without further optimizing memory access by, for example, staging data in the GPU's faster shared memory), we achieved a maximum speed-up of approx. = 126 for a sq 1024 grid relative to the sequential C code running on a single Intel Nehalem (2.8 GHz) core. This speedup is consistent with simple estimates based on the known floating point performance, memory throughput and parallel processing capacity of the GTX 480		
	versions		**versions**			