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	id	id8597377694899915007	id	id4199963762925914521		
	abstract		abstract	In this work, we design an entropy stable, finite volume approximation for the ideal magnetohydrodynamics (MHD) equations. The method is novel as we design an affordable analytical expression of the numerical interface flux function that discretely preserves the entropy of the system. To guarantee the discrete conservation of entropy requires the addition of a particular source term to the ideal MHD system. Exact entropy conserving schemes cannot dissipate energy at shocks, thus to compute accurate solutions to problems that may develop shocks, we determine a dissipation term to guarantee entropy stability for the numerical scheme. Numerical tests are performed to demonstrate the theoretical findings of entropy conservation and robustness.		
	versions		versions			