

cases	doc_1		doc_2		decision	id
	authors	<ul style="list-style-type: none"><li>Duan She</li><li>Ze Fang Jiang</li><li>De-fu Hou</li><li>C. B. Yang</li></ul>	authors	<ul style="list-style-type: none"><li>Duan She</li><li>Ze Fang Jiang</li><li>Defu Hou</li><li>C. B. Yang</li></ul>	DUPLICATES	1015
	title	1+1 dimensional relativistic magnetohydrodynamics with longitudinal acceleration	title	1+1 dimensional relativistic magnetohydrodynamics with longitudinal acceleration		
	publication_date	2019-07-02 00:00:00	publication_date	2019-12-18 00:00:00		
	source	SupportedSources.INTERNET_ARCHIVE	source	SupportedSources.INTERNET_ARCHIVE		
	journal		journal	American Physical Society (APS)		
	volume		volume			
	doi		doi	10.1103/physrevd.100.116014		
	urls	<ul style="list-style-type: none"><li>https://web.archive.org/web/20200907151046/https://arxiv.org/pdf/1907.01250v1.pdf</li></ul>	urls	<ul style="list-style-type: none"><li>https://web.archive.org/web/20191219050334/https://journals.aps.org/prd/pdf/10.1103/PhysRevD.100.116014</li></ul>		
	id	id307382346615702035	id	id8730256640003010411		
	abstract	Non-central heavy-ion collisions generate the strongest magnetic field of the order of 10^18-10^19 Gauss due to the electric current produced by the positively charged spectators that travel at nearly the speed of light. Such transient electromagnetic fields may induce various novel effects in the hydrodynamic description of the quark gluon plasma for non-central heavy-ion collisions. We investigate the longitudinal acceleration effects on the 1+1 dimensional relativistic magnetohydrodynamics with transverse magnetic fields. We analyze the proper time evolution of the system energy density. We find that the longitudinal acceleration parameter $\hat{L}^*$ , magnetic field decay parameter $a$ , equation of state $\hat{P}^0$ , and initial magnetization $\hat{M}_0$ have nontrivial effects on the evolutions of the system energy density and temperature.	abstract	Nonentral heavy-ion collisions generate the strongest magnetic field of the order of 10 18 -10 19 Gauss due to the electric current produced by the positively charged spectators that travel at nearly the speed of light. Such transient electromagnetic fields may induce various novel effects in the hydrodynamic description of the quark gluon plasma for noncentral heavy-ion collisions. We investigate the longitudinal acceleration effects on the 1 ¼ 1 dimensional relativistic magnetohydrodynamics (MHD) with homogenous transverse magnetic fields. Exact solution of such MHD with a special equation of state (EoS) is presented, and we analyze the proper time evolution of the system energy density for general EoS. We find that the longitudinal acceleration parameter $\hat{L}^*$ , magnetic field decay parameter $a$ , equation of state $\hat{P}^0$ , and initial magnetization $\hat{M}_0$ have nontrivial effects on the evolutions of the system energy density and temperature profile.		
	versions		versions			