cases	doc_1		doc_2		decision	id
	authors	• Mark Dorodnyi			DUPLICATES	366
	title	Operator error estimates for homogenization of the nonstationary SchrÃ¶dinger-type equations: sharpness of the results				
	publication_date	2020-05-12 13:01:55+00:00				
	source	SupportedSources.ARXIV				
	journal	None				
	volume					
	doi					
	urls	• http://arxiv.org/pdf/2005.06516v1 • http://arxiv.org/abs/2005.06516v1 • http://arxiv.org/pdf/2005.06516v1				
	id	id6066491460610571383				
	abstract	In $L_2 (\mathbb{R}^d; \mathbb{C}^n)$, we consider a selfadjoint matrix strongly elliptic second order differential operator $\mathcal{A}_\varepsilon$ with periodic coefficients depending on $\mathbf{x}/\varepsilon$. We find approximations of the exponential $e^{-i \tau \mathcal{A}_\varepsilon}$, $\tau \in \mathbb{R}$, for small ε in the ($H^s \to L_2$)-operator norm with suitable s. The sharpness of the error estimates with respect to τ is discussed. The results are applied to study the behavior of the solution $\mathbf{u}_\varepsilon$ of the Cauchy problem for the Schr\"{o}dinger-type equation $i\partial_{\tau} \mathbf{u}_\varepsilon = \mathcal{A}_\varepsilon \mathbf{u}_\varepsilon + \mathbf{F}$.				
	versions					
			authors	• M. Dorodnyi		
			title	Operator error estimates for homogenization of the nonstationary SchrÃ¶dinger-type equations: sharpness of the results		
			publication_date	2020-05-12 00:00:00		
			source	SupportedSources.SEMANTIC_SCHOLAR		
			journal	Applicable Analysis		
			volume	101		
			doi	10.1080/00036811.2021.1901886		
			urls	• https://www.semanticscholar.org/paper/9526306582908a82b5ad230490511e9a5a5a5e75		
			id	id7059994715517950858		
			abstract	In , we consider a self-adjoint matrix strongly elliptic second-order differential operator with periodic coefficients depending on . We find approximations of the exponential , , for small Îµ in the ( )-operator norm with suitable s. The sharpness of the error estimates with respect to Ï„ is discussed. The results are applied to study the behavior of the solution of the Cauchy problem for the SchrÃ¶dinger-type equation .		
			versions			