cases	doc_1		doc_2		decision	id
	authors	• Wittich, O.	**authors**	• Wittich, O.	NOT DUPLICATES	1956
	title	Smooth Homogenization of Heat Equations on Tubular Neighborhoods	**title**	L2-Homogenization of Heat Equations on Tubular Neighborhoods		
	publication_date	2008-01-01 00:00:00	**publication_date**	2008-01-01 00:00:00		
	source	SupportedSources.CORE	**source**	SupportedSources.CORE		
	journal		**journal**			
	volume		**volume**			
	doi	None	**doi**	None		
	urls	• http://arxiv.org/abs/0810.5052	**urls**	• http://arxiv.org/abs/0810.5047		
	id	id1885857527409798129	**id**	id1899348500227600175		
	abstract	We consider the heat equation with Dirichlet boundary conditions on the tubular neighborhood of a closed Riemannian submanifold. We show that, as the tube diameter tends to zero, a suitably rescaled and renormalized semigroup converges to a limit semigroup in Sobolev spaces of arbitrarily large Sobolev index.Comment: 30 page	**abstract**	We consider the heat equation with Dirichlet boundary conditions on the tubular neighborhood of a closed Riemannian submanifold. We show that, as the tube radius decreases, the semigroup of a suitably rescaled and renormalized generator can be effectively described by a Hamiltonian on the submanifold with a potential that depends on the geometry of the submanifold and of the embedding.Comment: 34 page		
	versions		**versions**			