cases

doc_1		doc_2		decision	id
		authors	• Ara Basmajian	DUPLICATES	349
		title	Generalizing the hyperbolic collar lemma		
		publication_date	1992-07-01 00:00:00		
		source	SupportedSources.INTERNET_ARCHIVE		
		journal			
		volume			
		doi			
		urls	• https://archive.org/download/arxiv-math9207211/math9207211.pdf		
		id	id5390605561357958978		
		abstract	We discuss two generalizations of the collar lemma. The first is the stable neighborhood theorem which says that a (not necessarily simple) closed geodesic in a hyperbolic surface has a stable neighborhood whose width only depends on the length of the geodesic. As an application, we show that there is a lower bound for the length of a closed geodesic having crossing number k on a hyperbolic surface. This lower bound tends to infinity with k. Our second generalization is to totally geodesic hypersurfaces of hyperbolic manifolds. Namely, we construct a tubular neighborhood function and show that an embedded closed totally geodesic hypersurface in a hyperbolic manifold has a tubular neighborhood whose width only depends on the area of the hypersurface (and hence not on the geometry of the ambient manifold). The implications of this result for volumes of hyperbolic manifolds is discussed. We also derive a (hyperbolic) quantitative version of the Klein-Maskit combination theorem (in all dimensions) for free products of fuchsian groups. Using this last theorem, we construct examples to illustrate the qualitative sharpness of the tubular neighborhood function.		
		versions			
authors	• Ara Basmajian				
title	Generalizing The Hyperbolic Collar Lemma				
publication_date	1992-07-01 00:00:00				
source	SupportedSources.INTERNET_ARCHIVE				
journal	American Mathematical Society (AMS)				
volume					
doi	10.1090/s0273-0979-1992-00298-7				
urls	• https://web.archive.org/web/20060901212237/http://www.math.ou.edu/~abasmajian/pdf/Generalizing%20the%20hyperbolic%20collar%20lemma.pdf				
id	id-7011345061377972235				
abstract	We discuss two generalizations of the collar lemma. The first is the stable neighborhood theorem which says that a (not necessarily simple) closed geodesic in a hyperbolic surface has a "stable neighborhood"whose width only depends on the length of the geodesic. As an application, we show that there is a lower bound for the length of a closed geodesic having crossing number k on a hyperbolic surface. This lower bound tends to infinity with k. Our second generalization is to totally geodesic hypersurfaces of hyperbolic manifolds. Namely, we construct a tubular neighborhood function and show that an embedded closed totally geodesic hypersurface in a hyperbolic manifold has a tubular neighborhood whose width only depends on the area of the hypersurface (and hence not on the geometry of the ambient manifold). The implications of this result for volumes of hyperbolic manifolds is discussed. We also derive a (hyperbolic) quantitative version of the Klein-Maskit combination theorem (in all dimensions) for free products of fuchsian groups. Using this last theorem, we construct examples to illustrate the qualitative sharpness of the tubular neighborhood function. 1991 Mathematics Subject Classification. Primary 30F40, 53C20.				
versions					