

1. Record Nr.	UNINA9910957081003321
Autore	Sasaki Dounnu
Titolo	Subset Currents on Surfaces
Pubbl/distr/stampa	Providence : , : American Mathematical Society, , 2022 ©2022
ISBN	9781470471682 9781470453435
Edizione	[1st ed.]
Descrizione fisica	1 online resource (178 pages)
Collana	Memoirs of the American Mathematical Society ; ; v.278
Classificazione	20F6730F35
Disciplina	515/.9 515.9
Soggetti	Fuchsian groups Riemann surfaces Hyperbolic groups Ergodic theory Group theory and generalizations -- Special aspects of infinite or finite groups -- Hyperbolic groups and nonpositively curved groups Functions of a complex variable -- Riemann surfaces -- Fuchsian groups and automorphic functions
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Cover -- Title page -- Chapter 1. Introduction -- 1.1. Background -- 1.2. Main results -- 1.3. Future study -- 1.4. Organization of article -- 1.5. Acknowledgements -- Chapter 2. Subset Currents on Hyperbolic Groups -- 2.1. Space of subset currents on hyperbolic group -- 2.2. Measure theory background -- Chapter 3. Volume Functionals on Kleinian Groups -- Chapter 4. Subgroups, Inclusion Maps and Finite Index Extension -- 4.1. Natural continuous linear maps between subgroups -- 4.2. Finite index extension of functionals -- Chapter 5. Intersection Number -- 5.1. Intersection number of closed curves -- 5.2. Intersection number of surfaces -- 5.3. Continuous extension of intersection number -- Chapter 6. Intersection Functional on Subset Currents -- Chapter 7. Projection from Subset Currents onto Geodesic Currents -- 7.1. Construction of projection -- 7.2. Application of projection -- Chapter 8. Denseness Property of Rational Subset

Sommario/riassunto

"Subset currents on hyperbolic groups were introduced by Kapovich and Nagnibeda as a generalization of geodesic currents on hyperbolic groups, which were introduced by Bonahon and have been successfully studied in the case of the fundamental group Γ of a compact hyperbolic surface. Kapovich and Nagnibeda particularly studied subset currents on free groups. In this article, we develop the theory of subset currents on Γ , which we call subset currents on Γ . We prove that the space $SC(\Gamma)$ of subset currents on Γ is a measure-theoretic completion of the set of conjugacy classes of non-trivial finitely generated subgroups of Γ , each of which geometrically corresponds to a convex core of a covering space of Γ . This result was proved by Kapovich-Nagnibeda in the case of free groups, and is also a generalization of Bonahon's result on geodesic currents on hyperbolic groups. We will also generalize several other results of them. Especially, we extend the (geometric) intersection number of two closed geodesics on Γ to the intersection number of two convex cores on Γ and, in addition, to a continuous R^2 -bilinear functional on $SC(\Gamma)$ --