1.	Record Nr.	UNINA9910736002203321
	Autore	Lentner Simon
	Titolo	Hochschild Cohomology, Modular Tensor Categories, and Mapping Class Groups I / / by Simon Lentner, Svea Nora Mierach, Christoph Schweigert, Yorck Sommerhäuser
	Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2023
	ISBN	981-19-4645-0
	Edizione	[1st ed. 2023.]
	Descrizione fisica	1 online resource (76 pages)
	Collana	SpringerBriefs in Mathematical Physics, , 2197-1765 ; ; 44
	Altri autori (Persone)	MierachSvea Nora SchweigertChristoph SommerhäuserYorck
	Disciplina	530.15423
	Soggetti	Mathematical physics Algebraic topology Algebra, Homological Mathematical Physics Algebraic Topology Category Theory, Homological Algebra
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di contenuto	Mapping class groups -- Tensor categories -- Derived functors.
	Sommario/riassunto	The book addresses a key question in topological field theory and logarithmic conformal field theory: In the case where the underlying modular category is not semisimple, topological field theory appears to suggest that mapping class groups do not only act on the spaces of chiral conformal blocks, which arise from the homomorphism functors in the category, but also act on the spaces that arise from the corresponding derived functors. It is natural to ask whether this is indeed the case. The book carefully approaches this question by first providing a detailed introduction to surfaces and their mapping class groups. Thereafter, it explains how representations of these groups are constructed in topological field theory, using an approach via nets and ribbon graphs. These tools are then used to show that the mapping class groups indeed act on the so-called derived block spaces. Toward

the end, the book explains the relation to Hochschild cohomology of Hopf algebras and the modular group.