1. Record Nr. UNINA9910465358403321

Autore	Lescop Christine <1966->
Titolo	Global surgery formula for the Casson-Walker invariant / / by Christine Lescop
Pubbl/distr/stampa	Princeton, New Jersey : , : Princeton University Press, , 1996 ©1996
ISBN	0-691-02133-3 1-4008-6515-8
Descrizione fisica	1 online resource (156 p.)
Collana	Annals of Mathematics Studies ; ; Number 10
Disciplina	514/.72
Soggetti	Surgery (Topology) Three-manifolds (Topology) Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front matter -- Table of contents -- Chapter 1. Introduction and statements of the results -- Chapter 2. The Alexander series of a link in a rational homology sphere and some of its properties -- Chapter 3. Invariance of the surgery formula under a twist homeomorphism -- Chapter 4. The formula for surgeries starting from rational homology spheres -- Chapter 5. The invariant A. for 3-manifolds with nonzero rank -- Chapter 6. Applications and variants of the surgery formula -- Appendix. More about the Alexander series -- Bibliography -- Index
Sommario/riassunto	This book presents a new result in 3-dimensional topology. It is well known that any closed oriented 3-manifold can be obtained by surgery on a framed link in S 3. In Global Surgery Formula for the Casson-Walker Invariant, a function F of framed links in S 3 is described, and it is proven that F consistently defines an invariant, lamda (l), of closed oriented 3-manifolds. l is then expressed in terms of previously known invariants of 3-manifolds. For integral homology spheres, l is the invariant introduced by Casson in 1985, which allowed him to solve old and famous questions in 3-dimensional topology. l becomes simpler as the first Betti number increases. As an explicit function of Alexander polynomials and surgery coefficients of framed links, the function F

	extends in a natural way to framed links in rational homology spheres. It is proven that F describes the variation of l under any surgery starting from a rational homology sphere. Thus F yields a global surgery formula for the Casson invariant.

2.

Record Nr.	UNINA9910983089403321
Autore	Lubguban Arnold A
Titolo	Computational Thermo-kinetics of Rigid Polyurethane Foams : Theory and Applications / / by Arnold A. Lubguban, Arnold C. Alguno, Roberto M. Malaluan, Gerard G. Dumancas
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2025
ISBN	9789819620777 9819620775
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (165 pages)
Collana	SpringerBriefs in Applied Sciences and Technology, , 2191-5318
Altri autori (Persone)	AlgunoArnold C MalaluanRoberto M DumancasGerard G
Disciplina	530.10285
Soggetti	Mathematical physics Computer simulation Materials science - Data processing Artificial intelligence Quantum computers Computational Physics and Simulations Computational Materials Science Artificial Intelligence Quantum Computing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	-- Foundations of Computational Thermokinetics in RPUF. -- Modeling Techniques. -- Key Factors in Computational Modeling of RPUF. -- Implications and Future Outcomes.
Sommario/riassunto	This book presents a detailed exploration of advanced computational

modeling techniques in the design, testing, and applications of rigid polyurethane foams (RPUFs). By leveraging modern approaches such as database-driven predictions, iterative simulations, and emerging innovations in computational material engineering, it offers a more accurate and efficient way to model the thermo-kinetic behavior of RPUFs. The necessity for computational tools in materials science is intertwined with the growth of the polyurethane market, with many academic and industrial researchers seeking to adopt these methods. The book comprehensively discusses the advancement in bridging the gap between traditional empirical methods and cutting-edge computational techniques specifically applied to RPUFs. Furthermore, it is a comprehensive guide to the computational modeling of the thermo-kinetics of RPUFs, making it an essential resource for researchers, engineers, and academicians seeking to innovate in material science and engineering. This book addresses a niche yet critical area within this broader scope.